Air Quality
ENVIRONMENTAL QUALITY

ROY COOPER
*Governor*

*Secretary*

SHEILA C. HOLMAN
*Director*

January 3, 2017 - Draft

Mr. Paul White
General Manager
Valley Proteins, Inc. – Fayetteville Plant
1309 Industrial Drive
Fayetteville, North Carolina 28301

SUBJECT: **Air Quality Permit No. 00951T31**
**Facility ID: 2600013**
**Valley Proteins, Inc. – Fayetteville Plant**
**Fayetteville, North Carolina**
**Cumberland County**
**Fee Class: Title V**
**PSD Class: Major**

Dear Mr. White:

In accordance with your completed Air Quality Permit Application for a Renewal with a name change, 502(b)(10) and minor modifications of your Title V permit received November 23, 2016, we are forwarding herewith Air Quality Permit No. 00951T31 to Valley Proteins, Inc. – Fayetteville Plant, North Carolina authorizing the construction and operation, of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 02Q .0503(8) have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3. The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.

As the designated responsible official it is your responsibility to review, understand, and abide by all of the terms and conditions of the attached permit. It is also your responsibility to ensure that any person who operates any emission source and associated air pollution control device subject to any term or condition of the attached permit reviews, understands, and abides by the condition(s) of the attached permit that are applicable to that particular emission source.

If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. This hearing request must be in the form of a written petition, conforming to NCGS (North Carolina General Statutes) 150B-23, and filed with both the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, North Carolina 27699-6714 and the Division of Air Quality, Permitting Section, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings. Please note that this permit will be stayed in its entirety upon receipt of the request for a hearing.

Unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding 30 days after issuance.

You may request modification of your Air Quality Permit through informal means pursuant to NCGS 150B-22. This request must be submitted in writing to the Director and must identify the specific provisions or issues for which the modification is sought. Please note that this Air Quality Permit will become final and binding regardless of a request for informal modification unless a request for a hearing is also made under NCGS 150B-23.

The construction of new air pollution emission source(s) and associated air pollution control device(s), or modifications to the emission source(s) and air pollution control device(s) described in this permit must be covered under an Air Quality Permit issued by the Division of Air Quality prior to construction unless the Permittee has fulfilled the requirements of NCGS 143-215.108A(b) and received written approval from the Director of the Division of Air Quality to commence construction. Failure to receive an Air Quality Permit or written approval prior to commencing construction is a violation of NCGS 143-215.108A and may subject the Permittee to civil or criminal penalties as described in NCGS 143-215.114A and 143-215.114B.

Cumberland County has triggered increment tracking under PSD for particulate matter ($PM_{10}$), nitrogen oxide (NOx) and sulfur dioxide ($SO_2$). PSD increment tracking for PSD Class II purposes is required as part of this renewal with modifications due to an increase in PM/$PM_{2.5}$/$PM_{10}$ emissions of 0.2 pounds per hour.

This Air Quality Permit shall be effective from ***March XX, 2017*** until XXXX***, 2022***, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein.

Should you have any questions concerning this matter, please contact Ms. Judy Lee at (919)707-8729 judy.lee@ncdenr.gov.

Sincerely yours,

William D. Willets, P.E., Chief, Permitting Section
Division of Air Quality, NCDEQ

Enclosure

c: Heather Ceron, EPA Region 4
Fayetteville Regional Office
Central Files
Connie Horne (cover letter only)

ATTACHMENT to Permit No. 00951T31

Insignificant Activities per 15A NCAC 02Q .0503(8)

| Source ID No. | Emission Source Description |
|---|---|
| IS1 | Poultry meal silo |
| IS2 | Poultry meal silo |
| IS3 | Feather meal silo #1 |
| IS4 | Feather meal silo #2 |
| IS5 | Meat meal silo #1 |
| IS6 | Meat meal silo #2 |
| IS7 | Meat meal silo #3 |
| IS8 | Meal silo |
| IS9 | Meal silo |
| IHS | HIVAC System with integral cartridge filter to vacuum up the protein dust (added per Applicability Determination No. 2114) |

1. Because an activity is insignificant does not mean that the activity is exempted from an applicable requirement or that the Permittee is exempted from demonstrating compliance with any applicable requirement.
2. When applicable, emissions from stationary source activities identified above shall be included in determining compliance with the permit requirements for toxic air pollutants under 15A NCAC 02D .1100 “Control of Toxic Air Pollutants” or 02Q .0711 “Emission Rates Requiring a Permit.”
3. For additional information regarding the applicability of MACT or GACT see the DAQ page titled “Specific Permit Conditions Regulatory Guide.” The link to this site is as follows: http://deq.nc.gov/about/divisions/air-quality/air-quality-permits/specific-permit-conditions-regulatory-guide

## Summary of Changes to Permit (page #'s will be updated prior to issuance)

The following changes were made to the **Valley Proteins, Inc. – Fayetteville Division**, Air Permit No. 0095T31:

| Old Page No. | New Page No. | Condition No. | Changes |
|---|---|---|---|
| Globally | Globally | N/A | Amend permit revision numbers, issuance/effective dates and shell language. |
| Permit Title Page | Permit Title Page | N/A | Updated text and added increment statement. |
| Pages 3 – 5 | Pages 3-5 | Equipment List | Added/removed equipment, as well as new control scenarios. Added MACT and NSPS indicators. |
| Pages 6 – 30 | Pages 6 – XX | Section 2.1-throughout | Changed all testing references to 2Q .0508(f) and updated language throughout permit per current shell guidance |
| N/A | Page 10 | Section 2.1.A-5 | Added NSPS Avoidance |
| N/A | Page XX | Section 2.1.A-16 | Added Boiler MACT Avoidance for Minor Sources |
| N/A | Page XX | Section 2.1.A-15 | Added Boiler MACT for Minor Sources |
| Page 21 | Page XX | Section 2.1.A-13 (old) now 2.1A-14 | Changed "Vendor Supplied" because DAQ no longer has vendor supplied program under toxics program |
| Pages 6 – 21 | N/A | Section 2.1.A-1 | Removed Covered anerobic lagoon Pretreatment system (ID No. ES-10) controlled by natural gas/Biogas-fired flare (CD10a; 3.5 million Btu/hour maximum heat input) |
| Pages 31 – 40 | Pages XX-XX | Section 3 | Updated General Conditions and List of Acronyms per current shell guidance (Version 3.4) and added newest version (Version 4.0 1/7/2016) |

State of North Carolina
Department of Environmental Quality
Division of Air Quality

# AIR QUALITY PERMIT

| Permit No. | Replaces Permit No.(s) | Effective Date | Expiration Date |
|---|---|---|---|
| 00951T31 | 00951T30 | March XX, 2017 | February XX, 2022 |

Until such time as this permit expires or is modified or revoked, the below named Permittee is permitted to construct and operate the emission source(s) and associated air pollution control device(s) specified herein, in accordance with the terms, conditions, and limitations within this permit. This permit is issued under the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended, and Title 15A North Carolina Administrative Codes (15A NCAC), Subchapters 02D and 02Q, and other applicable Laws.

Pursuant to Title 15A NCAC, Subchapter 02Q, the Permittee shall not construct, operate, or modify any emission source(s) or air pollution control device(s) without having first submitted a complete Air Quality Permit Application to the permitting authority and received an Air Quality Permit, except as provided in this permit.

| | |
|---|---|
| **Permittee:** | **Valley Proteins, Inc. – Fayetteville Division** |
| **Facility ID:** | **2600013** |
| **Facility Site Location:** | **1309 Industrial Drive** |
| **City, County, State, Zip:** | **Fayetteville, Cumberland County, North Carolina, 28301** |
| **Mailing Address:** | **1309 Industrial Drive** |
| **City, State, Zip:** | **Fayetteville, North Carolina, 28301-6323** |
| **Application Numbers:** | **2600013.13B; 2600013.13C; 2600013.14A and 2600013.14B/C** |
| **Complete Application Dates:** | **November 23, 2016; September 27, 2013; February 28, 2014 & April 13, 2014** |
| **Primary SIC Code:** | **2077** |
| **Division of Air Quality, Regional Office Address:** | **Fayetteville Regional Office<br>Systel Building<br>225 Green Street, Suite 714<br>Fayetteville, North Carolina, 28301** |

Permit issued this the XX$^{th}$ day of March, 2017

William D. Willets, P.E., Chief, Air Permitting Section
By Authority of the Environmental Management Commission

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ATTACHMENT
List of Acronyms

# SECTION 1 - PERMITTED EMISSION SOURCE (S) AND ASSOCIATED AIR POLLUTION CONTROL DEVICE (S) AND APPURTENANCES

The following table contains a summary of all permitted emission sources and associated air pollution control devices and appurtenances:

| Emission Source ID No. | Emission Source Description | Control Device ID No. | Control Device Description |
|---|---|---|---|
| ES1<br>**MACT JJJJJJ** | Process Boiler #1 - natural gas, No. 2, recycled No. 4 equivalent fuel oil, No. 5 fuel oil, No. 6 fuel oil, saleable fat-fired; 26.8 million Btu/hour heat input | N/A | None |
| ES2<br>**MACT JJJJJJ** | Process Boiler #2 - natural gas, No. 2, recycled No. 4 equivalent fuel oil, No. 5 fuel oil, No. 6 fuel oil, saleable fat-fired; 26.8 million Btu/hour heat input | N/A | None |
| ES3<br>**MACT JJJJJJ** | Process Boiler #3 - natural gas, No. 2, recycled No. 4 equivalent fuel oil, No. 5 fuel oil, No. 6 fuel oil, saleable fat-fired; 59.3 million Btu/hour heat input | N/A | None |
| ES4 | Feed Grade Plant Offal Processes venting to ~~either or both of two~~ air-cooled condenser~~s~~ (ID No~~s~~. ~~CD7b~~ and CD4b) | **COS 1**<br>CD6a<br><br>CD4g<br>ES1, ES2, and/or ES3<br><br>**COS 2**<br>CD4c<br><br>CD4e<br>ES12<br><br>**COS 3**<br>~~CD6a~~<br><br>~~CD6b~~<br><br>CD6a | **Compliance Operating Scenario No. 1**<br>Venturi scrubber (scrubbant flow pressure 12 to 15 psig), venting to<br>Mist eliminator, venting to<br>Boiler #1, Boiler #2, and/or Boiler #3<br><br>**Compliance Operating Scenario No. 2**<br>Venturi scrubber (scrubbant flow pressure 12 to 15 psig), venting to<br>Mist eliminator, venting to<br>Boiler #4<br><br>**Compliance Operating Scenario No. 3**<br>~~Venturi scrubber (scrubbant flow pressure 12 to 15 psig), venting to~~<br>~~Packed bed scrubber (scrubbant flow pressure 6 to 10 psig with chlorine dioxide additive)~~<br>~~**[Non-Condensable Treatment Systems]**~~<br><br>Venturi scrubber (scrubbant flow pressure 12 |
| ES5a, ~~ES5c~~ | ~~Two (2)~~ A feather dryer~~s~~ venting to an air-cooled condenser (ID No. CD5c) | | |
| ES5c | A feather or feather/blood dryer (4,338 square feet) venting to an air-cooled condenser (ID No. CD5c) | | |
| ~~ES5b~~ | ~~Seven (7) feather cookers venting to an air-cooled condenser (ID No. CD5d)~~ | | |
| ES5d | Feather hydrolyser venting to an air-cooled condenser (ID No. CD5d) | | |

| Emission Source ID No. | Emission Source Description | Control Device ID No. | Control Device Description |
|---|---|---|---|
| ES7 | Grease process | CD4h | to 15 psig), venting to<br>Packed bed scrubber (scrubbant flow pressure 10-22 psig with chlorine dioxide additive) |
| ES6 | **Feed Grade Plant**<br>Miscellaneous equipment | CD4f<br><br>CD4h | Venturi scrubber (scrubbant pressure flow of 12 to 15 psig), venting to<br>Packed bed scrubber (scrubbant pressure flow of 10 to 22 psig with chlorine dioxide additive)<br>~~**[High Intensity Treatment System]**~~ |
| ES9 | Rendering room air system | CD9a | Two-staged cross-flow scrubber with a scrubbant flow pressure of 13 to 17 psig with chlorine dioxide additive |
| ~~ES10~~ | ~~Covered anaerobic lagoon pretreatment system~~ | ~~CD10a~~ | ~~Natural gas/Biogas-fired flare (3.5 million Btu/hour maximum heat input)~~ |
| ES11 | Pet Grade Plant Offal Material Process No. 1 venting to either of two air-cooled condensers (ID Nos. CD11a or CD11b) | CD11c<br><br>-and-<br><br>ES14<br>-or-<br>CD16b | Venturi scrubber with a pressure range of 13 to 15 psig<br><br>-and-<br><br>Boiler #5<br>-or-<br>Packed bed scrubber with a pressure range of 3 to 8 psig utilizing chlorine dioxide |
| ES12<br>**NSPS Dc**<br>**MACT JJJJJJ** | Process Boiler #4 - natural gas, No. 2 oil, saleable fat-fired (61.5 million Btu/hour maximum firing rate) | N/A | None |
| ES13 | Poultry meal and feather meal truck and/or container load out operation with a two-sided roofed enclosure | N/A | None |
| ES14<br>**NSPS Dc**<br>**MACT JJJJJJ** | Process Boiler #5 - natural gas, No. 2 fuel oil, saleable fat-fired (58.6 million Btu/hr heat input) | N/A | None |
| ES15 | Rendering room air system | CD15a | Cross-flow scrubber with a scrubbant flow pressure of 13 to 17 psig with chlorine dioxide additive |
| ES16 | Pet Grade Plant pressers, centrifuges, and miscellaneous equipment | CD16a<br><br>-and-<br><br>CD16b | Venturi scrubber with a pressure range of 13 to 15 psig<br><br>-and-<br><br>Packed bed scrubber with a pressure range of 3 to 8 psig utilizing chlorine dioxide |

| Emission Source ID No. | Emission Source Description | Control Device ID No. | Control Device Description |
|---|---|---|---|
| ES17 | Truck and/or container meal load out operation with a four-sided roofed enclosure | N/A | None |
| ES20 | Pet Grade Plant Offal Material Process No. 2 venting to either of two air-cooled condensers (ID Nos. CD20a or CD20b) | CD11c<br><br>-and-<br><br>~~ES12~~<br>~~or~~<br>ES14<br>or<br>CD16b | Venturi scrubber with a pressure range of 13 to 15 psig<br><br>-and-<br><br>~~Boiler #4~~<br>~~or~~<br>Boiler #5<br>or<br>Packed bed scrubber with a pressure range of 3 to 8 psig utilizing chlorine dioxide |
| ES21 | Temporary back-up boiler - natural gas, No. 2, No. 4 equivalent, No. 5, No. 6 fuel oil, saleable fat-fired (< 30 million Btu/hr heat input) to be operated **only** when another boiler is taken out of service | N/A | None |
| ES22<br>**MACT JJJJJJ** | Process boiler #7 - natural gas; No. 2, recycled No. 4 equivalent, No. 5 and No. 6 fuel oils; saleable fat-fired (29.3 million Btu/hr heat input) | N/A | None |

# SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

## 2.1 – Emission Source(s) and Control Devices(s) Specific Limitations and Conditions

The emission source(s) and associated air pollution control device(s) and appurtenances listed below are subject to the following specific terms, conditions, and limitations, including the testing, monitoring, recordkeeping, and reporting requirements as specified herein:

**A. Process Boiler #1 (ID No. ES1);**
**Process Boiler #2 (ID No. ES2);**
**Process Boiler #3 (ID No. ES3);**
**Process Boiler #4 (ID No. ES12);**
**Process Boiler #5 (ID No. ES14);**
**Process Boiler #7 (ID No. ES22);**
**Temporary back-up boiler (ID No. ES21) and,**
~~**Covered Anaerobic Lagoon Pretreatment System (ID No. ES-10)**~~

The following table provides a summary of limits and standards for the emission source(s) described above:

| Regulated Pollutant | Limits/Standards | Applicable Regulation |
|---|---|---|
| Particulate matter | 0.27 lbs/million Btu (**ID No. ES1**)<br>0.27 lbs/million Btu (**ID No. ES2**)<br>0.29 lbs/million Btu (**ID No. ES3**)<br>0.29 lbs/million Btu (**ID No. ES12**)<br>0.25 lbs/million Btu (**ID No. ES14**)<br>0.24 lbs/million Btu (**ID No. ES21**)<br>0.25 lbs/million Btu (**ID No. ES22**) | 15A NCAC 02D .0503 |
| Sulfur dioxide | 2.3 pounds per million Btu heat input | 15A NCAC 02D .0516(a) |
| Visible emissions | 20 percent opacity | 15A NCAC 02D .0521(d) |
| Sulfur dioxide<br><br>Visible emissions | Sulfur in fuel limit of 0.5 weight percent sulfur (**ID Nos. ES12 and ES14** ~~**and ES21 when applicable**~~)<br><br>20 percent opacity | 15A NCAC 02D .0524 (40 CFR 60.40c, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (60.40c--60.48c)) |
| Sulfur dioxide<br><br>Visible emissions | Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units **(ID No. ES21)** | 15A NCAC 02Q .0317 for 15A NCAC 02D .0524 (40 CFR 60.40c, Subpart Dc) |
| Sulfur dioxide | Sulfur dioxide emissions from the boiler (**ID No. ES3**) shall be less than 240 tons per consecutive twelve (12) month period **and** sulfur dioxide emissions from the boilers (**ID Nos. ES1 and ES2**) shall be less than 250 tons per consecutive twelve (12) month period. | 15A NCAC 02Q .0317 for 15A NCAC 02D. 0530 PSD Avoidance Condition |

| Regulated Pollutant | Limits/Standards | Applicable Regulation |
|---|---|---|
| Nitrogen dioxide<br>Sulfur dioxide<br>Carbon monoxide | Sulfur dioxide and nitrogen oxide emissions from the boiler (**ID No. ES12**) shall be less than 40 tons per consecutive 12-month period and carbon monoxide emissions from the boiler (**ID No. ES12**) shall be less than 100 tons per consecutive 12-month period. | 15A NCAC 02Q .0317 for 15A NCAC 02D. 0530 PSD Avoidance Condition |
| Nitrogen dioxide<br>Sulfur dioxide<br>Carbon monoxide | Sulfur dioxide and nitrogen oxide emissions from the boiler (**ID No. ES14**) shall be less than 40 tons per consecutive 12-month period and carbon monoxide emissions from the boiler (**ID No. ES14**) shall be less than 100 tons per consecutive 12-month period. | 15A NCAC 02Q .0317 for 15A NCAC 02D. 0530 PSD Avoidance Condition |
| Nitrogen dioxide | Nitrogen oxide emissions from boilers (**ID Nos. ES1, ES2, ES3, ES12 and ES14**) shall be less than 40 tons per consecutive 12-month period while combusting saleable fat oil. | 15A NCAC 02Q .0317 for 15A NCAC 02D. 0530 PSD Avoidance Condition |
| Nitrogen dioxide<br>Sulfur dioxide | When providing steam to the Pet Grade Plant Offal Material Process No. 2:<br>– Sulfur dioxide emissions from boilers (**ID Nos. ES12, and ES14**) shall be less than 91 tons per consecutive 12-month period; and,<br>– Nitrogen oxide emissions from boilers (**ID Nos. ES12, and ES14**) shall be less than 70 tons per consecutive 12-month period. | 15A NCAC 02Q .0317 for 15A NCAC 02D. 0530 PSD Avoidance Condition |
| Nitrogen dioxide<br>Sulfur dioxide | Nitrogen oxide and sulfur dioxide emissions from boiler (**ID No. ES21**) shall be less than 40 tons per consecutive 12-month period. | 15A NCAC 02Q .0317 for 15A NCAC 02D. 0530 PSD Avoidance Condition |
| Nitrogen dioxide<br>Sulfur dioxide | Nitrogen oxide and sulfur dioxide emissions from boiler (**ID No. ES22**) shall be less than 40 tons per consecutive 12-month period. | 15A NCAC 02Q .0317 for 15A NCAC 02D. 0530 PSD Avoidance Condition |
| Particulate matter (10 and 2.5 microns) | $PM_{10}$ and $PM_{2.5}$ emissions from boiler (**ID No. ES22**) shall be less than 15 and 10 tons, respectively, per consecutive 12-month period. | 15A NCAC 02Q .0317 for 15A NCAC 02D. 0530 PSD Avoidance Condition |
| Odors | The owner or operator of any facility that produces feed-grade animal proteins or feed-grade animal fats and oils, but do not apply to any portions of such facilities that are engaged exclusively in the processing of food for human consumption, shall comply with work practices standards. *Section 2.2 A.1. Facility-wide Affected Emission Sources*<br>**State-enforceable only** | 15A NCAC 02D .0539 |
| Toxic air pollutants | All recycled No. 4 equivalent fuel oil received and fired at the affected boiler (**ID Nos. ES1, ES2, ES3, and ES22**) shall meet the required specifications.<br>**State-enforceable only** | 15A NCAC 02Q .0317 for 15A NCAC 02D .1100 Toxics Avoidance Condition |

| Regulated Pollutant | Limits/Standards | Applicable Regulation |
|---|---|---|
| Hazardous air pollutants | Avoidance Condition for 40 CFR 63, Subpart JJJJJJ, "National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Area Sources: Industrial, Commercial, and Institutional Boilers", including Subpart A "General Provisions," for temporary boilers **(ID No. ES21)** | 15A NCAC 02Q .0317 for 15A NCAC 02D .1111 MACT Avoidance Condition |
| Hazardous air pollutants | 40 CFR 63, Subpart JJJJJJ, "National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Area Sources: Industrial, Commercial, and Institutional Boilers", including Subpart A "General Provisions" **(ID Nos. ES1, ES2, ES3, ES12, ES14 and ES22)** | 15A NCAC 02D .1111 |

**1. 15A NCAC 02D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS**

a. Emissions of particulate matter from the combustion of natural gas, No. 2 oil, recycled No. 4 equivalent fuel oil, No. 5 oil, No. 6 oil, and saleable fat oil that are discharged into the atmosphere shall not exceed the following pounds per million Btu (lb/million Btu) heat input limitations. [15A NCAC 02D .0503(c)]

| Emission Source | Emission Limit |
|---|---|
| Process Boiler #1 (**ID No. ES1**) | 0.27 lb/million Btu |
| Process Boiler #2 (**ID No. ES2**) | 0.27 lb/million Btu |
| Process Boiler #3 (**ID No. ES3**) | 0.29 lb/million Btu |
| Process Boiler #4 (**ID No. ES12**) | 0.29 lb/million Btu |
| Process Boiler #5 (**ID No. ES14**) | 0.25 lb/million Btu |
| Temporary back-up boiler (**ID No. ES21**) | 0.24 lb/million Btu |
| Process Boiler #7 (**ID No. ES22**) | 0.25 lb/million Btu |

**Testing** [15A NCAC 2Q .0508(f)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test exceed the limit given in Section 2.1.-A.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0503.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 2Q .0508(f)]

c. No monitoring, recordkeeping, or reporting is required for particulate emissions from the firing of natural gas, No. 2 fuel oil, and saleable fat in the boilers (**ID Nos. ES12, ES14 and ES21**).

d. No monitoring, recordkeeping, or reporting is required for particulate emissions from firing of natural gas, No. 2, No. 4, No. 5 and No. 6 fuel oil; and saleable fat in boilers (**ID Nos. ES1, ES2, ES3, ES21, and ES22**).

**2. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES**

a. Emissions of sulfur dioxide from these boilers (**ID Nos. ES1, ES2, ES3, ES21 and ES22**) *when firing any fuel*, boilers (**ID Nos. ES12 and ES14**) *when firing natural gas, No. 2 fuel oil and saleable fat*, ~~and the covered anaerobic lagoon pretreatment system (ID No. ES10)~~ shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 02D .0516]

**Testing** [15A NCAC 2Q .0508(f)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1-A.2.a., above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

**Monitoring/Recordkeeping** [15A NCAC 02Q .0508(f)]

c. No monitoring, recordkeeping, or reporting is required for sulfur dioxide emissions from the firing of natural gas, No. 2 fuel oil and saleable fat in the boilers (**ID Nos. ES1, ES2, ES3, ES12, ES14, ES21 and ES22**) ~~and the firing of natural gas or sewer gas in the covered anaerobic lagoon pretreatment system (ID No. ES10)~~.

d. The maximum sulfur content of any No. 5 or No. 6 fuel oil received and burned in the boilers (**ID Nos. ES1, ES2, ES3, ES21 and ES22**) shall not exceed 2.1 percent by weight. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516 if the sulfur content of the fuel oil exceeds this limit.

e. The maximum sulfur content of any recycled No. 4 equivalent fuel oil received and burned in the boilers (**ID Nos. ES1, ES2, ES3, ES21 and ES22**) shall not exceed 2.0 percent by weight. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516 if the sulfur content of the recycled No. 4 equivalent fuel oil exceeds this limit.

f. To assure compliance, the Permittee shall monitor the sulfur content of the recycled No. 4 equivalent, No. 5, and No. 6 fuel oils by using fuel oil supplier certification per shipment received. The results of the fuel oil supplier certifications shall be recorded in a logbook (written or electronic format) on a quarterly basis and include the following information:
   i. the name of the fuel oil supplier;
   ii. the maximum sulfur content of the fuel oil received during the quarter;
   iii. the method used to determine the maximum sulfur content of the fuel oil; and
   iv. a certified statement signed by the responsible official that the records of fuel oil supplier certification submitted represent all of the recycled No. 4 equivalent fuel oil, No. 5 fuel oil and No. 6 fuel oil fired during the period.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516 if the sulfur content of the oil is not monitored and recorded.

**Reporting** [15A NCAC 02Q .0508(f)]

g. The Permittee shall submit a summary report of the fuel oil supplier certifications postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS**

a. Visible emissions from these sources boiler #1 (**ID No. ES1**), boiler #2 (**ID No. ES2**), boiler #3 (**ID No. ES3**), ~~lagoon pretreatment system (ID No. ES10)~~, temporary back-up boiler (**ID No. ES21**) and boiler #7 **(ID No. ES22)** shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521 (d)]

**Testing** [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1-A.3.a. **(ID No. ES1, ES2**, **ES3**, **ES21** and **ES22)** above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

**Monitoring** [15A NCAC 02Q .0508(f)]

c. To assure compliance when the boilers are firing No. 4 equivalent fuel oil, No. 5 fuel oil or No. 6 fuel oil, the Permittee shall observe the emission points of these sources listed in Section 2.1-A.3.a., above, for

any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:

i. Take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or

ii. Demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1-A.3. a. above.

If the above-normal emissions are not corrected per (i) above or if the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

**Recordkeeping** [15A NCAC 02Q .0508(f)]

d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
   iii. the results of any corrective actions performed.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained**.**

**Monitoring/Recordkeeping/Reporting** [15A NCAC 02Q .0508(f)]

e. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas/propane/No. 2 fuel oil and saleable fat in this source.

**Reporting** [15A NCAC 02Q .0508(f)]

f. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**4. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS: Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (40 CFR Part 60 Subpart Dc) - Boiler Nos. #4 and #5 (ID Nos. ES12 and ES14) ~~and temporary back-up boiler (ID No. ES21) if constructed, reconstructed, or modified after June 9th 1989~~**

a. The Permittee shall comply with all applicable provisions, including the notification, testing, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 "New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60 Subpart Dc," including Subpart A "General Provisions."[15A NCAC 02D .0524]

~~b. The Permittee is required to submit a written notification of the manufacture date of any temporary back-up boiler (**ID No. ES21**) within 15 days after installation to the Division of Air Quality, Regional Supervisor.~~

**Emission Limitations** [15A NCAC 02D .0524]
**Process boilers (ID Nos. ES12 and ES14) ~~and temporary back-up boiler (ID No. ES21)~~**
***For emissions of sulfur dioxide***

c. ~~Under provisions of 40 CFR 60 Subpart Dc: Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, and~~ As specifically stated in 40 CFR 60.42c(d): "... no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains

greater than 0.5 weight percent sulfur."

d. As specifically stated in 40 CFR 60.42c(i): "The ... fuel oil sulfur limits ... under this section apply at all times, including periods of startup, shutdown, and malfunction."

**Process boilers (ID Nos. ES12 and ES14)**

***For emissions of particulate matter (PM - Opacity)***

e. As specifically stated in 40 CFR 60.43c(c): "No owner or operator of an affected facility that combusts ~~coal, wood, or~~ oil and has a heat input capacity of 8.7 MW (30 million Btu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity."

f. As specifically stated in 40 CFR 60.43c(d): "The PM and opacity standards under this section apply at all times, except during periods of startup, shutdown, or malfunction." Terms used throughout this segment [Section 2.1 A.4.] are defined in the Clean Air Act as amended in 1990 and in 40 CFR 60.2 and 60.41c.

**Testing** [15A NCAC 02Q .0508(f)]

g. If emissions testing is required, the testing shall be performed in accordance with 40 CFR 60.40c and General Condition JJ found in Section 3. If the results of the test performed exceed the limits given in Sections 2.1-A.4.c., d., e., and f. (above), the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

**Monitoring/Recordkeeping** [15A NCAC 02Q .0508(f)]

h. To comply with the provisions of the permit and ensure compliance with the limitations prescribed in 15A NCAC 02D .0524, the Permittee shall establish an inspection and maintenance schedule/checklist and perform such inspections and maintenance on the process boilers (**ID No. ES12 and ES14**). As a minimum, the inspection and maintenance program will include a monthly inspection of the indirect heat exchangers, boilers, fans, and duct work for leaks and to ensure structural integrity. In addition, Permittee shall perform maintenance and cleaning at least once per year. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the process boilers are not inspected, cleaned, and maintained.
The results of inspection and maintenance activities, discussed above for the process boilers, shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative of DAQ upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each inspection; and
   iii. corrective actions taken.
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these records are not maintained.

***For emissions of sulfur dioxide*** ($SO_2$)

i. To ensure compliance, pursuant to 40 CFR 60.42c(h)(1) the Permittee shall monitor the sulfur content of distillate fuel oil by using fuel oil supplier certification per shipment received. The results of the fuel oil supplier certifications shall be recorded in a logbook (written or electronic format) on a quarterly basis and include the following information:
   i. the name of the fuel oil supplier;
   ii. the maximum sulfur content of the fuel oil received during the quarter;
   iii. a statement from the oil supplier that the oil complies with the specification under the definition of distillate oil in 40 CFR 60.41c and
   iv. a certified statement signed by the responsible official that the records of fuel oil supplier certification submitted represent all of the fuel oil fired during the period.
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the sulfur content of the distillate oil is not monitored and recorded. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the sulfur content of the fuel oil exceeds 0.5 percent sulfur by weight.

***For emissions of particulate matter (Opacity)***

j. To ensure compliance and effective operation of the boilers, the Permittee shall observe, on a weekly basis, the emission points for the boilers with **ID Nos. ES12 and ES14** for any visible emissions above normal. If visible emissions are observed to be above normal, the Permittee shall either:
   i. be deemed to be in noncompliance with 15A NCAC 02D .0524 or
   ii. demonstrate that the visible emissions from the emission points for boilers with **ID Nos. ES12 and ES14** (or **ID Nos. EP12 and EP14**), in accordance with 40 CFR 60.43c, 40 CFR 60.45c, and 15A NCAC 02D .0501(c)(8), do not exceed 20 percent opacity.

   If the demonstrations in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0524.

k. The results of the monitoring for visible emissions shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. To ensure quality, entries in the logbook should be signed by personnel responsible for the effective operation of the boilers and its air pollution control devices. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
   iii. the results of any corrective actions performed.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these records are not maintained.

l. In addition to any other record keeping requirements of the Environmental Protection Agency (EPA), the Permittee is required to maintain records as follows:
   i. the owner or operator of an affected facility shall record and maintain records of the amounts of each fuel combusted during each day; and
   ii. all records required under this section shall be maintained by the owner or operator of an affected facility for a period of two years following the date of such record.

   The record of the amounts of fuel combusted during each day shall be made available to an authorized representative of DAQ upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the amounts of fuel combusted during each day are not recorded.

**Reporting** [15A NCAC 02Q .0508(f)]

m. In addition to any other notification requirements to the Environmental Protection Agency (EPA), the Permittee is required to NOTIFY the Regional Supervisor, Division of Air Quality, in WRITING, of the following:
   i. the sulfur content of the distillate oil combusted in an affected facility shall not exceed 0.5 percent by weight. If fuel supplier certification is used to demonstrate compliance, fuel supplier certification shall include the following information:
      A. the name of the oil supplier;
      B. a statement from the oil supplier that the oil complies with the specification under the definition of distillate oil in 40 CFR 60.41c; and
      C. a certified statement signed by the owner or operator of an affected facility that the records of fuel supplier certification submitted represents all of the fuel combusted during the quarter.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the sulfur content of the fuel oil exceeds 0.5 percent by weight sulfur.

n. The Permittee shall submit a summary report of monitoring and record keeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**5. 15A NCAC 2Q. 0317: AVOIDANCE CONDITIONS for 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS**

a. In order to avoid the applicability of Environmental Management Commission Standard 15A NCAC 2D .0524 "New Source Performance Standards" (NSPS) as promulgated in 40 CFR Part 60 Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units including Subpart A "General Provisions," the Permittee shall operate the emission source (**ID No. ES-21**) as a temporary boiler as defined in 40 CFR 60.41c.

Temporary boiler means a steam generating unit that combusts natural gas or distillate oil with a potential SO2 emissions rate no greater than 26 ng/J (0.060 lb/MMBtu), and the unit is designed to, and is capable of, being carried or moved from one location to another by means of, for example, wheels, skids, carrying handles, dollies, trailers, or platforms. A steam generating unit is not a temporary boiler if any one of the following conditions exists:

i. The equipment is attached to a foundation.
ii The steam generating unit or a replacement remains at a location for more than 180 consecutive days. Any temporary boiler that replaces a temporary boiler at a location and performs the same or similar function will be included in calculating the consecutive time period.
iii. The equipment is located at a seasonal facility and operates during the full annual operating period of the seasonal facility, remains at the facility for at least 2 years, and operates at that facility for at least 3 months each year.
iv. The equipment is moved from one location to another in an attempt to circumvent the residence time requirements of this definition.

[40 CFR 60.40c, .41c]

**Recordkeeping** [15A NCAC 2Q 0508(f)]

b. The Permittee shall maintain, and make available upon request, the following records:
i. the first, last and total number of days the boiler is on site for each consecutive time period the boiler is brought on site and;
ii. the function of the boiler for each consecutive time period.

The results shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if the records in condition c. above are not maintained or the boiler does not meet the definition of a temporary boiler as defined in condition a. above.

**Reporting** [15A NCAC 2Q 0508(f); 40 CFR 60.7]

c. The Permittee is required to submit a written notification of the manufacture date of any temporary back-up boiler (**ID No. ES21**) within 15 days after installation to the Division of Air Quality, Regional Supervisor.

**6. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS for 15A NCAC 02D. 0530: PREVENTION OF SIGNIFICANT DETERIORATION**

a. ~~To comply with this permit and~~ In order to avoid the applicability of 15A NCAC 02D .0530(g) for major sources and major modifications, Prevention of Significant Deterioration, as requested by the Permittee, sulfur dioxide ($SO_2$) emissions shall be limited as follows:

i. Rolling total $SO_2$ emissions from Boiler Nos. 1 and 2 (**ID Nos. ES1 and ES2**) shall be less than 250 tons per consecutive 12-month period; and,
ii. Rolling total $SO_2$ emissions from Boiler No. 3 (**ID No. ES3**) shall be less than 240 tons per consecutive 12-month period. [15A NCAC 02D .0530]

**Testing** [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the Permittee shall perform such testing in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1-A.5.a., the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

**Monitoring/Recordkeeping** [15A NCAC 02Q .0508(f)]

c. The Permittee shall monitor and record the quantity of natural gas, No. 2/No. 4/No. 5/No. 6 fuel oil, and saleable fat combusted in each of the affected boilers (**ID Nos. ES1, ES2, and ES3**) during the previous calendar month. Records of monthly fuel combustion shall be recorded in a logbook (written or electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if monthly fuel combustion is not monitored and recorded as provided above.

d. The Permittee shall monitor the sulfur content of the No. 2, recycled No. 4 equivalent, No. 5, and No. 6 fuel oils by using a fuel oil supplier certification per shipment received. The results of the fuel oil supplier certifications shall be recorded on a quarterly basis and shall include the following information:
   i. the name of the fuel oil supplier;
   ii. the maximum sulfur content of the fuel oil received during the quarter;
   iii. the method used to determine the maximum sulfur content of the fuel oil; and
   iv. a certified statement signed by the responsible official that the records of fuel oil supplier certification submitted represent all of the No. 2, recycled No. 4 equivalent fuel oil, No. 5 fuel oil, and No. 6 fuel oil fired during the period. Records of the fuel oil supplier certifications shall be recorded in a logbook (written or electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the sulfur content of the oil is not monitored and recorded.

e. Each month, the Permittee shall calculate and record the total $SO_2$ emissions from Boiler Nos. 1 and 2 **(ID Nos. ES1 and ES2)** and Boiler No. 3 **(ID No. ES3)** for the previous calendar month, according to the following equations:

**For Boiler Nos. 1 and 2 (ID Nos. ES1 and ES2):**

$$E_{SO2} = 0.6 * V_{ng} + 157 * S_{FO6} * V_{FO6} + 157 * S_{FO5} * V_{FO5} + 150 * S_{FO4} * V_{FO4} + 2.25 * V_{fat}$$

**For Boiler No. 3 (ID No. ES3):**

$$E_{SO2} = 0.6 * V_{ng} + 157 * S_{FO6} * V_{FO6} + 157 * S_{FO5} * V_{FO5} + 150 * S_{FO4} * V_{FO4} + 142 * S_{FO2} * V_{FO2} + 2.25 * V_{fat}$$

Where;

$V_{ng}$ = Total volume of natural gas fired in the affected boilers during the previous calendar month (in MMscf/mo);
$S_{FO6}$ = Sulfur content of No. 6 fuel oil fired in the affected boilers during the previous calendar month [in % by weight (i.e., for 2% sulfur content, $S_{FO6} = 2$)];
$V_{FO6}$ = Volume of No. 6 fuel oil fired in the affected boilers during the previous calendar month (in $10^3$ gal/mo);
$S_{FO5}$ = Sulfur content of No. 5 fuel oil fired in the affected boiler during the previous calendar month [in % by weight (i.e., for 2% sulfur content, $S_{FO5} = 2$)];
$V_{FO5}$ = Volume of No. 5 fuel oil fired in the affected boilers during the previous calendar month (in $10^3$ gal/mo);
$S_{FO4}$ = Sulfur content of recycled No. 4 equivalent fuel oil fired in the affected boilers during the previous calendar month [in % by weight (i.e., for 2% sulfur content, $S_{FO4} = 2$)];
$V_{FO2}$ = Total volume of recycled No. 4 equivalent fuel oil fired in the affected boilers during the previous calendar month (in $10^3$ gal/mo);
$S_{FO2}$ = Sulfur content of No. 2 fuel oil fired in the affected boilers during the previous calendar month [in % by weight (i.e., for 2% sulfur content, $S_{FO2} = 2$)];
$V_{FO2}$ = Total volume of No. 2 fuel oil fired in the affected boilers during the previous calendar month (in $10^3$ gal/mo); and,
$V_{fat}$ = Total volume of saleable fat fired in the affected boilers during the previous calendar month (in $10^3$ gal/mo).

Records of the monthly calculations listed above shall be made in a logbook (written or electronic format) and retained on file. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the records of the monthly calculations, as provided above, are not created and retained.

f. The Permittee shall calculate the 12-month rolling $SO_2$ emissions for Boiler Nos. 1 and 2 **(ID Nos. ES1 and ES2)** and Boiler No. 3 **(ID No. ES3)** once per calendar month by summing monthly emissions, as calculated in Section 2.1 A.5 e. of this permit, for the previous 12 calendar months. Records of the 12-month rolling calculations shall be made in a logbook (written or electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if records are not created and retained or if the 12-month rolling emissions exceed any limit provided in Section 2.1-A.5 a. of this Permit.

**Reporting** [15A NCAC 02Q .0508(f)]

g. ~~Within 30 days after each calendar year half, the Permittee shall report the following information to the Regional Supervisor, Division of Air Quality~~ The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
   i. Monthly $SO_2$ emissions from Boiler Nos. 1 and 2 **(ID Nos. ES1 and ES2)** and Boiler No. 3 **(ID No. ES3)** for each of the 12-month periods over the previous 17 months as calculated in Section 2.1-A.5. e. of this permit; and,
   ii. 12-month rolling $SO_2$ emissions from Boiler Nos. 1 and 2 **(ID Nos. ES1 and ES2)** and Boiler No. 3 **(ID No. ES3)** for each of the ~~six~~ 12-month periods over the previous 17 month period as calculated in Section 2.1-A.5. f. of this permit.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the emissions of sulfur dioxide from Boiler Nos. 1 and 2 (**ID Nos. ES1 and ES2**) exceed 250 tons per consecutive 12-month period.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the emissions of sulfur dioxide from Boiler No. 3 (**ID No. ES3**) exceed 240 tons per consecutive 12-month period.

**7. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS**
**for 15A NCAC 02D. 0530: PREVENTION OF SIGNIFICANT DETERIORATION**

a. ~~To comply with this permit and~~ In order to avoid the applicability of 15A NCAC 02D .0530(g) for major sources and major modifications, "Prevention of Significant Deterioration," as requested by the Permittee, rolling total $SO_2$ and rolling total nitrogen oxide emissions from the boiler (**ID No. ES12**) shall each be less than 40 tons per consecutive 12-month period. Rolling Total carbon monoxide emissions from the boiler (**ID No. ES12**) shall be less than 100 tons per consecutive 12-month period.

**Testing** [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the Permittee shall perform such testing in accordance with General Condition JJ. If the results of this test are above the limits given in Section 2.1-A.6.a., the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

**Monitoring/Recordkeeping** [15A NCAC 02Q .0508(f)]

c. To ensure enforceability of this limit, the combination of fuel usage in the boiler (**ID No. ES12**) shall be limited such that emissions do not exceed those levels specified above.

d. The Permittee shall keep records in a logbook (written or electronic format) of the amount of each fuel combusted in the boiler (**ID No. ES12**), sulfur content of fuel oil combusted, and the emissions calculations for sulfur dioxide, nitrogen oxide, and carbon monoxide for each month. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if these records are not maintained.

e. Calculations of rolling total emissions of sulfur dioxide, carbon monoxide, and nitrogen oxide from the boiler (**ID No. ES12**) shall be made monthly. Calculations shall be made using AP-42 emission factors for emissions from fuel oil and natural gas combustion and emission factors listed below for saleable fat oil combustion based on source tests that were completed at the Valley Proteins Inc. - Wadesboro and Gastonia Plants.

| Nitrogen Oxide | Carbon Monoxide | Sulfur Dioxide |
|---|---|---|
| 0.293 pounds/million Btu | 0.017 pounds/million Btu | 0.018 pounds/million Btu |

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the emissions of sulfur dioxide, nitrogen oxide, and carbon monoxide from the boiler (**ID No. ES12**) are not calculated.

f. The Permittee shall keep each monthly record of emissions of sulfur dioxide, nitrogen dioxide, and carbon monoxide from the boiler (**ID No. ES12**). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the monthly records are not maintained.

**Reporting** [15A NCAC 02Q .0508(f)]

g. ~~For compliance purposes, within 30 days after each calendar year half, the following shall be reported to the Regional Supervisor, Division of Environmental Management~~ The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
   i. The monthly emissions of carbon monoxide, sulfur dioxide, and nitrogen oxide from the boiler (**ID No. ES12**) calculated for each of the ~~six~~ twelve month periods over the previous 17 months ~~period~~, and
   ii. The monthly quantity of each fuel combusted in the boiler (**ID No. ES12**) over the previous 17 month periods.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the emissions of sulfur dioxide and nitrogen oxide from the boiler (**ID No. ES12**) exceed 40 tons per consecutive 12-month period. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the emissions of carbon monoxide from the boiler (**ID No. ES12**) exceed 100 tons per consecutive 12-month period.

**8. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS**
**for 15A NCAC 02D. 0530: PREVENTION OF SIGNIFICANT DETERIORATION**

a. ~~To comply with this permit and~~ In order to avoid applicability of 15A NCAC 02D .0530(g) for major sources and major modifications, "Prevention of Significant Deterioration," as requested by the Permittee, rolling total sulfur dioxide and rolling total nitrogen oxide emissions from the boiler (**ID No. ES14**) shall each be less than 40 tons per consecutive 12-month period. Rolling total carbon monoxide emissions from the boiler (**ID No. ES14**) shall be less than 100 tons per consecutive 12-month period.

**Testing** [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the Permittee shall perform such testing in accordance with ~~15A NCAC 02D .0501(c)(4) and (c)(7), 40 CFR Part 60 Appendix A, Method 10, for carbon monoxide, and~~ General Condition JJ. If the results of this test are above the limits given in Section 2.1-A.7.a., the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

**Monitoring/Recordkeeping** [15A NCAC 02Q .0508(f)]

c. To ensure enforceability of this limit, the combination of fuel usage in the boiler (**ID No. ES14**) shall be limited such that emissions do not exceed those levels specified above.

d. The Permittee shall keep records in a logbook (written or electronic format) of the amount of each fuel combusted in the boiler (**ID No. ES14**), sulfur content of fuel oil combusted, and the emissions calculations for sulfur dioxide, nitrogen oxide, and carbon monoxide for each month. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if these records are not maintained.

e. Calculations of rolling totals of emissions of sulfur dioxide, carbon monoxide, and nitrogen oxide from the boiler (**ID No. ES14**) shall be made monthly. Calculations shall be made using AP-42 emission factors for emissions from fuel oil and natural gas combustion and emission factors listed below for saleable fat oil combustion based on source tests that were completed at the Valley Proteins Inc. - Wadesboro and Gastonia Plants.

| Nitrogen Oxide | Carbon Monoxide | Sulfur Dioxide |
|---|---|---|
| 0.293 pounds/million Btu | 0.017 pounds/million Btu | 0.018 pounds/million Btu |

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the emissions of sulfur dioxide, nitrogen oxide, and carbon monoxide from the boiler (**ID No. ES14**) are not calculated.

f. The Permittee shall keep each monthly record of emissions of sulfur dioxide, nitrogen dioxide, and carbon monoxide from the boiler (**ID No. ES14**). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the monthly records are not maintained.

**Reporting** [15A NCAC 02Q .0508(f)]

g. ~~For compliance purposes, within 30 days after each calendar year half, the following shall be reported to the Regional Supervisor, Division of Environmental Management~~ The Permittee shall submit a semi-summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
   i. Emissions of carbon monoxide, sulfur dioxide, and nitrogen oxide from the boiler (**ID No. ES14**) for each of the ~~six~~ twelve month periods over the previous 17 month period, and
   ii. The monthly quantity of each fuel combusted in the boiler (**ID No. ES14**) over the previous 17 month periods.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the emissions of sulfur dioxide and nitrogen oxide from the boiler (**ID No. ES14**) exceed 40 tons per consecutive 12-month period. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the emissions of carbon monoxide from the boiler (**ID No. ES14**) exceed 100 tons per consecutive 12-month period.

**9. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS**
**for 15A NCAC 02D. 0530: PREVENTION OF SIGNIFICANT DETERIORATION**

a. ~~To comply with this permit and~~ In order to avoid the applicability of 15A NCAC 02D .0530(g) for major sources and major modifications, "Prevention of Significant Deterioration," as requested by the Permittee, rolling total nitrogen oxide (NOx) emissions from boilers **(ID Nos. ES1, ES2, ES3, ES12 and ES14)** resulting from the combustion of saleable fat shall be less than 40 tons per consecutive 12-month period.

**Testing** [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the Permittee shall perform such testing in accordance with ~~40 CFR Part 60 Appendix A, Method 10 and~~ General Condition JJ. If the results of this test are above the limits given in Section 2.1-A.8.a., the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

**Monitoring/Recordkeeping** [15A NCAC 02Q .0508(f)]

c. The Permittee shall keep records in a logbook (written or electronic format) of the quantity of saleable fat fired in the affected boilers and the calculated nitrogen oxide emissions resulting from saleable fat combustion. ~~Emission calculations of nitrogen oxide for the consecutive 12-month periods shall begin on January 26, 2004.~~ Calculations of rolling totals of emissions of nitrogen oxide from the boilers (**ID Nos. ES1, ES2, ES3, ES12 and ES14**) shall be made monthly. Calculations shall be made using the emission factor listed below based on source tests that were completed at the Valley Proteins Inc. - Wadesboro and Gastonia Plants.

| Nitrogen Oxide |
|---|
| 0.293 pounds/million Btu |

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the records and calculations are not maintained or if emissions of nitrogen oxide from the combustion of saleable fat are equal to or in exceedance of 40 tons for any consecutive 12-month period.

d. The Permittee shall cease burning saleable fat oil upon written notification from the Regional Supervisor, Division of Air Quality. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if saleable fat oil continues to be burned after receiving the written notification from the Division of Air Quality.

**Reporting** [15A NCAC 02Q .0508(f)]

e. ~~For compliance purposes, within 30 days after each calendar year half the following shall be reported to the Regional Supervisor, Division of Air Quality~~ The Permittee shall submit a semi-summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
   i. Nitrogen oxide emissions from the boilers **(ID Nos. ES1, ES2, ES3, ES12, and ES14)** while burning saleable fat for each of the ~~six~~ 12-month periods over the previous 17-month period; and,
   ii. The amount of saleable fat oil combusted in boilers **(ID Nos. ES1, ES2, ES3, ES12, and ES14)** for each of the ~~six~~ 12-month periods over the previous 17-month period.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the emissions of nitrogen oxide from boilers **(ID Nos. ES1, ES2, ES3, ES12 and ES14)** while burning saleable fat exceed 40 tons per consecutive 12-month period.

**10. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS for 15A NCAC 02D. 0530: PREVENTION OF SIGNIFICANT DETERIORATION**

a. ~~To comply with this permit and~~ In order to avoid applicability of 15A NCAC 02D .0530(g) for major sources and major modifications,, Prevention of Significant Deterioration, as requested by the Permittee, combined emissions from boilers **(ID Nos. ES12 and ES14)** shall not exceed the following limitations:
   i. Rolling sulfur dioxide emissions shall be less than 91 tons per consecutive 12-month period; and,
   ii. Rolling nitrogen oxide emissions shall be less than 70 tons per consecutive 12-month period.

**Testing** [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the Permittee shall perform such testing in accordance with ~~40 CFR Part 60 Appendix A, Method 10 and~~ General Condition JJ. If the results of this test are above the limits given in Section 2.1-A.9.a., the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

**Monitoring/Recordkeeping** [15A NCAC 02Q .0508(f)]

c. The Permittee shall keep the following records in a logbook (written or electronic format) each calendar month for the affected boilers **(ID Nos. ES12 and ES14)**:
   i. The quantity of each fuel fired in each of the affected boilers; and,
   ii. The sulfur content of any fuel oil fired.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if these records are not maintained.

d. The Permittee shall calculate the monthly emissions of $SO_2$ and $NO_x$ each calendar month according to the following procedures:
   i. Calculate the $SO_2$ emissions ($E_{SO2}$) from the affected boilers during the previous calendar month, as follows:

$$E_{SO2} = 0.6 * V_{ng} + 157 * S_{FO6} * V_{FO6} + 150 * S_{FO4} * V_{FO4} + 142 * S_{FO2} * V_{FO2} + 2.25 * V_{fat}$$

Where;

$V_{ng}$ = Total volume of natural gas fired in the affected boilers during the previous calendar month (in MMscf/mo);
$S_{FO6}$ = Sulfur content of No. 6 fuel oil fired in the affected boilers during the previous calendar month [in % by weight (i.e., for 2% sulfur content, $S_{FO6} = 2$)];
$V_{FO6}$ = Volume of No. 6 fuel oil fired in the affected boilers during the previous calendar month (in $10^3$ gal/mo);
$S_{FO4}$ = Sulfur content of recycled No. 4 equivalent fuel oil fired in the affected boilers during the previous calendar month [in % by weight (i.e., for 2% sulfur content, $S_{FO4} = 2$)];
$V_{FO4}$ = Total volume of recycled No. 4 equivalent fuel oil fired in the affected boilers during the previous calendar month (in $10^3$ gal/mo);
$S_{FO2}$ = Sulfur content of No. 2 fuel oil fired in the affected boilers during the previous calendar month [in % by weight (i.e., for 2% sulfur content, $S_{FO2} = 2$)];
$V_{FO2}$ = Total volume of No. 2 fuel oil fired in the affected boilers during the previous calendar month (in $10^3$ gal/mo); and
$V_{fat}$ = Total volume of saleable fat fired in the affected boilers during the previous calendar month (in $10^3$ gal/mo).

ii. Calculate the $NO_x$ emissions ($E_{NOx}$) during the previous calendar month, as follows:

$$E_{NOx} = 100 * V_{ng} + 55 * V_{FO6} + 20 * (V_{FO4} + V_{FO2}) + 36.58 * V_{fat}$$

Records of the monthly calculations listed above shall be made in a logbook (written or electronic format) and retained on file. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if records of the monthly calculations, as provided above, are not created and retained.

e. The Permittee shall calculate the 12-month rolling emissions of $SO_2$ and $NO_x$ once per calendar month by summing monthly emissions, as calculated in Section 2.1-A.9 d. of this permit, for the previous 12 calendar months. Records of the 12-month rolling calculations shall be made in a logbook (written or electronic format) and retained on file. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if records are not created and retained or if the 12-month rolling emissions exceed any limit provided in Section 2.1-A.9 a. of this Permit.

**Reporting** [15A NCAC 02Q .0508(f)]

f. ~~Within 30 days after each calendar year half, the Permittee shall report the following information to the Regional Supervisor, Division of Air Quality~~ The Permittee shall submit a semi-summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
   i. Monthly emissions of $SO_2$ and $NO_x$ from the affected boilers **(ID Nos. ES12 and ES14)** for the previous 17 months as calculated in Section 2.1-A.9. d. of this permit; and,
   ii. 12-month rolling emissions of $SO_2$ and $NO_x$ from the affected boilers **(ID Nos. ES12 and ES14)** for each of the ~~six~~ 12-month periods over the previous 17-month period as calculated in Section 2.1-A.9. e. of this permit.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the emissions of sulfur dioxide from the boilers (**ID Nos. ES12 and ES14**) exceed 91 tons per consecutive 12-month period. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the emissions of nitrogen oxide from the boilers (**ID Nos. ES12 and ES14**) exceed 70 tons per consecutive 12-month period.

**11. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS for 15A NCAC 02D .0530 PREVENTION OF SIGNIFICANT DETERIORATION**

a. ~~To comply with this permit and~~ In order to avoid applicability of 15A NCAC 02D .0530(g) for major sources and major modifications, Prevention of Significant Deterioration, as requested by the Permittee, rolling total sulfur dioxide and rolling total nitrogen oxide emissions from the temporary back-up boiler (**ID No. ES21**) shall each be less than 40 tons per consecutive 12-month period.

**Testing** [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the Permittee shall perform such testing in accordance with ~~15A NCAC 02D .0501(c)(4) and~~ General Condition JJ. If the results of this test are above the limit given in Section 2.1-A.10. a., the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

**Monitoring/Recordkeeping** [15A NCAC 02Q .0508(f)]

c. The Permittee shall monitor and record the quantity of natural gas, No. 2/No. 4/No. 5/No. 6 fuel oil, and saleable fat fired in the affected boiler (**ID No. ES21)** during the previous calendar month. Records of monthly fuel combustion shall be recorded in a logbook (written or electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if monthly fuel combustion is not monitored and recorded as provided above.

***Sulfur dioxide emissions:***

d. The Permittee shall monitor the sulfur content of the No. 2, recycled No. 4 equivalent, No. 5, and No. 6 fuel oils by using a fuel oil supplier certification per shipment received. The results of the fuel oil supplier certifications shall be recorded on a quarterly basis and shall include the following information:
   i. the name of the fuel oil supplier;
   ii. the maximum sulfur content of the fuel oil received during the quarter;
   iii. the method used to determine the maximum sulfur content of the fuel oil; and
   iv. a certified statement signed by the responsible official that the records of fuel oil supplier certification submitted represent all of the No. 2, recycled No. 4 equivalent fuel oil, No. 5 fuel oil, and No. 6 fuel oil fired during the period.

   Records of the fuel oil supplier certifications shall be recorded in a logbook (written or electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the sulfur content of the oil is not monitored and recorded.

e. Each month, the Permittee shall calculate and record the total $SO_2$ emissions from temporary back-up boiler (**ID No. ES21**) for the previous calendar month, according to the following equation:

$$E_{SO2} = 0.6 * V_{ng} + 157 * S_{FO6} * V_{FO6} + 157 * S_{FO5} * V_{FO5} + 150 * S_{FO4} * V_{FO4} + 142 * S_{FO2} * V_{FO2} + 2.25 * V_{fat}$$

Where;

$V_{ng}$ = Total volume of natural gas fired in the affected boilers during the previous calendar month (in MMscf/mo);
$S_{FO6}$ = Sulfur content of No. 6 fuel oil fired in the affected boilers during the previous calendar month [in % by weight (i.e., for 2% sulfur content, $S_{FO6} = 2$)];
$V_{FO6}$ = Volume of No. 6 fuel oil fired in the affected boilers during the previous calendar month (in $10^3$ gal/mo);
$S_{FO5}$ = Sulfur content of No. 5 fuel oil fired in the affected boiler during the previous calendar month [in % by weight (i.e., for 2% sulfur content, $S_{FO5} = 2$)];
$V_{FO5}$ = Volume of No. 5 fuel oil fired in the affected boilers during the previous calendar month (in $10^3$ gal/mo);
$S_{FO4}$ = Sulfur content of recycled No. 4 equivalent fuel oil fired in the affected boilers during the previous calendar month [in % by weight (i.e., for 2% sulfur content, $S_{FO4} = 2$)];
$V_{FO2}$ = Total volume of recycled No. 4 equivalent fuel oil fired in the affected boilers during the previous calendar month (in $10^3$ gal/mo);
$S_{FO2}$ = Sulfur content of No. 2 fuel oil fired in the affected boilers during the previous calendar month [in % by weight (i.e., for 2% sulfur content, $S_{FO2} = 2$)];
$V_{FO2}$ = Total volume of No. 2 fuel oil fired in the affected boilers during the previous calendar month (in $10^3$ gal/mo); and,
$V_{fat}$ = Total volume of saleable fat fired in the affected boilers during the previous calendar month (in $10^3$ gal/mo).

***Nitrogen oxides emissions:***

f. Each month the Permittee shall calculate and record NOx emissions from the temporary back-up boiler (**ID No. ES21**) for the previous calendar month, according to the following equation:

$$E_{NOx} = 100 * V_{ng} + 55 * V_{FO6} + 20 * (V_{FO4} + V_{FO2}) + 36.58 * V_{fat}$$

Records of the monthly calculations listed above shall be made in a logbook (written or electronic format) and retained on file. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the records of the monthly calculations, as provided above, are not created and retained.

g. The Permittee shall calculate the 12-month rolling $SO_2$ and NOx emissions for temporary back-up boiler (**ID No. ES21**) once per month for the previous 12 calendar months. Records of the 12-month rolling calculations shall be made in a logbook (written or electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if records are not created and retained or if the 12-month rolling emissions exceed any limit provided in Section 2.1-A.10 a. of this Permit.

**Reporting** [15A NCAC 02Q .0508(f)]

h. ~~Within 30 days after each calendar year half, the Permittee shall report the following information to the Regional Supervisor, Division of Air Quality~~ The Permittee shall submit a semi-summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
   i. Monthly $SO_2$ and NOx emissions from temporary back-up boiler (**ID No. ES21**) for the previous 17 months; and,
   ii. 12-month rolling $SO_2$ and NOx emissions for each of the ~~six~~ 12-month periods over the previous 17 month period.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the emissions of sulfur dioxide and nitrogen oxide from the temporary boiler (**ID No. ES21**) exceed 40 tons per consecutive 12-month period.

**12. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS**
**for 15A NCAC 02D .0530 PREVENTION OF SIGNIFICANT DETERIORATION**

a. ~~To comply with this permit and~~ In order to avoid applicability of 15A NCAC 02D .0530(g) for major sources and major modifications, Prevention of Significant Deterioration, as requested by the Permittee, rolling total sulfur dioxide and rolling total nitrogen oxide emissions from the affected boiler (**ID No. ES22**) shall each be less than 40 tons per consecutive 12-month period.

**Testing** [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the Permittee shall perform such testing in accordance with ~~15A NCAC 02D .0501(c)(4) and~~ General Condition JJ. If the results of this test are above the limit given in Section 2.1-A.11.a., the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

**Monitoring/Recordkeeping** [15A NCAC 02Q .0508(f)]

c. The Permittee shall monitor and record the quantity of natural gas, No. 2/recycled No. 4 equivalent/No. 5/No. 6 fuel oil and saleable fat fired in the affected boiler (**ID No. ES22)** during the previous calendar month. Records of monthly fuel combustion shall be recorded in a logbook (written or electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if monthly fuel combustion is not monitored and recorded as provided above.

***Sulfur dioxide emissions:***

d. The Permittee shall monitor the sulfur content of the No. 2, recycled No. 4 equivalent, No. 5 and No. 6 fuel oils by using a fuel oil supplier certification per shipment received. The results of the fuel oil supplier certifications shall be recorded on a quarterly basis and shall include the following information:
   i. the name of the fuel oil supplier;
   ii. the maximum sulfur content of the fuel oil received during the quarter;
   iii. the method used to determine the maximum sulfur content of the fuel oil; and

iv. a certified statement signed by the responsible official that the records of fuel oil supplier certification submitted represent all of the No. 2, recycled No. 4 equivalent fuel oil, No. 5 fuel oil and No. 6 fuel oil fired during the period.

Records of the fuel oil supplier certifications shall be recorded in a logbook (written or electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the sulfur content of the oil is not monitored and recorded.

e. Each month, the Permittee shall calculate and record the total $SO_2$ emissions from the affected boiler **(ID No. ES22)** for the previous calendar month, according to the following equation:

$$E_{SO2} = 0.6 * V_{ng} + 157 * S_{FO6} * V_{FO6} + 157 * S_{FO5} * V_{FO5} + 150 * S_{FO4} * V_{FO4} + 142 * S_{FO2} * V_{FO2} + 2.25 * V_{fat}$$

Where;

$V_{ng}$ = Total volume of natural gas fired in the affected boiler during the previous calendar month (in MMscf/mo);
$S_{FO6}$ = Sulfur content of No. 6 fuel oil fired in the affected boiler during the previous calendar month [in % by weight (i.e., for 2% sulfur content, $S_{FO6} = 2$)];
$V_{FO6}$ = Volume of No. 6 fuel oil fired in the affected boiler during the previous calendar month (in $10^3$ gal/mo);
$S_{FO5}$ = Sulfur content of No. 5 fuel oil fired in the affected boiler during the previous calendar month [in % by weight (i.e., for 2% sulfur content, $S_{FO5} = 2$)];
$V_{FO5}$ = Volume of No. 5 fuel oil fired in the affected boiler during the previous calendar month (in $10^3$ gal/mo);
$S_{FO4}$ = Sulfur content of recycled No. 4 equivalent fuel oil fired in the affected boiler during the previous calendar month [in % by weight (i.e., for 2% sulfur content, $S_{FO4} = 2$)];
$V_{FO2}$ = Total volume of recycled No. 4 equivalent fuel oil fired in the affected boiler during the previous calendar month (in $10^3$ gal/mo);
$S_{FO2}$ = Sulfur content of No. 2 fuel oil fired in the affected boiler during the previous calendar month [in % by weight (i.e., for 2% sulfur content, $S_{FO2} = 2$)];
$V_{FO2}$ = Total volume of No. 2 fuel oil fired in the affected boiler during the previous calendar month (in $10^3$ gal/mo); and,
$V_{fat}$ = Total volume of saleable fat fired in the affected boiler during the previous calendar month (in $10^3$ gal/mo).

***Nitrogen oxides emissions:***

f. Each month the Permittee shall calculate and record NOx emissions from the affected boiler **(ID No. ES22)** for the previous calendar month, according to the following equation:

$$E_{NOx} = 100 * V_{ng} + 55 * (V_{FO6} + V_{FO5}) + 20 * (V_{FO4} + V_{FO2}) + 36.58 * V_{fat}$$

Records of the monthly calculations listed above shall be made in a logbook (written or electronic format) and retained on file. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the records of the monthly calculations, as provided above, are not created and retained.

g. The Permittee shall calculate the 12-month rolling $SO_2$ and NOx emissions for the affected boiler **(ID No. ES22)** once per month for the previous 12 calendar months. Records of the 12-month rolling calculations shall be made in a logbook (written or electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if records are not created and retained or if the 12-month rolling emissions exceed any limit provided in Section 2.1-A.11 a. of this Permit.

**Reporting** [15A NCAC 02Q .0508(f)]

h. ~~Within 30 days after each calendar year half, the Permittee shall report the following information to the Regional Supervisor, Division of Air Quality~~ The Permittee shall submit a semi-summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:

i. Monthly $SO_2$ and NOx emissions from the affected boiler **(ID No. ES22)** for the previous 17 months; and,
ii. 12-month rolling $SO_2$ and NOx emissions for each of the ~~six~~ 12-month periods over the previous 17

month period.
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the emissions of sulfur dioxide and nitrogen oxide from the temporary boiler **(ID No. ES22)** exceed 40 tons per consecutive 12-month period.

**13. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS for 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION (avoidance, for particulate)**

a. In order to avoid applicability of 15A NCAC 02D .0530(g) for major sources and major modifications, Prevention of Significant Deterioration, the affected boiler **(ID No. ES22)** shall discharge into the atmosphere less than 15 and 10 tons of particulate matter of 10 and 2.5 microns, respectively, per consecutive 12-month period.

**Testing** [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the Permittee shall perform such testing in accordance with General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1-A.12.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

**Monitoring/Recordkeeping** [15A NCAC 02Q .0508 (f)]

c. The Permittee shall keep monthly records in a logbook (written or electronic format) of the amount of each fuel fired. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the amount of fuel used is not monitored.

d. The use of fuel in the affected boiler **(ID No. ES22)** shall be limited such that particulate matter emissions of 10 and 2.5 microns, shall not exceed 15 and 10 tons, respectively, for any consecutive 12-month period.

e. Each month, the Permittee shall calculate and record the total $PM_{10}$ and $PM_{2.5}$ emissions from the affected boiler (**ID No. ES22**) for the previous calendar month, according to the following equations:

$$E_{PM10} = 6.5 * V_{ng} + 19.5 * V_{FO6} + 9.9 + V_{FO5} + 7.3 * V_{FO4} + 2.8 * V_{FO2} + 5.4 * V_{fat}$$

$$E_{PM2.5} = 4.25 * V_{ng} + 12.7 * V_{FO6} + 6.4 * V_{FO5} + 4.7 * V_{FO4} + 1.8 * V_{FO2} + 3.5 * V_{fat}$$

Where;

$V_{ng}$ = Total volume of natural gas fired in the affected boiler during the previous calendar month (in MMscf/mo);
$V_{FO6}$ = Volume of No. 6 fuel oil fired in the affected boiler during the previous calendar month (in $10^3$ gal/mo);
$V_{FO5}$ = Volume of No. 5 fuel oil fired in the affected boiler during the previous calendar month (in $10^3$ gal/mo);
$V_{FO4}$ = Total volume of recycled No. 4 equivalent fuel oil fired in the affected boiler during the previous calendar month (in $10^3$ gal/mo);
$V_{FO2}$ = Total volume of No. 2 fuel oil fired in the affected boiler during the previous calendar month (in $10^3$ gal/mo); and,
$V_{fat}$ = Total volume of saleable fat fired in the affected boiler during the previous calendar month (in $10^3$ gal/mo).

Records of the monthly calculations listed above shall be made in a logbook (written or electronic format) and retained on file. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the above records are not kept or the particulate emissions exceed the above limits.

**Reporting** [15A NCAC 02Q .0508(f)]

f. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:

i. The monthly particulate emissions (10 and 2.5 microns) for the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months;
ii. The monthly quantities of each fuel consumed for the previous 17 months; and
iii. The average sulfur content of the No. 6 fuel oil.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the emissions of particulate matter emissions of 10 and 2.5 microns from the affected boiler **(ID No. ES22)** exceed 15 and 10 tons, respectively, per consecutive 12-month period.

**STATE ONLY REQUIREMENT:**

**14. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS for 15A NCAC ~~02D .1100: CONTROL OF TOXIC AIR POLLUTANTS~~ 2Q .0700: TOXIC AIR POLLUTANT PROCEDURES (for firing of Recycled fuels and avoidance of toxics air pollutants regulation)**

a. **~~Vendor Supplied~~ Recycled No. 4 Equivalent Fuel Oil Requirements**. In accordance with 15A NCAC 02Q .0317, the Permittee is avoiding the applicability of 15A NCAC 02Q .0700 by using recycled fuels which are equivalent to their virgin counterparts. ~~The Permittee is allowed to use the recycled fuel oil(s) supplied by a DAQ approved vendor as follows:~~ [15A NCAC 02Q .0702]

| ~~Constituent/Property~~ | ~~Allowable Level~~ |
|---|---|
| ~~Arsenic~~ | ~~1.0 ppm maximum~~ |
| ~~Cadmium~~ | ~~2.0 ppm maximum~~ |
| ~~Chromium~~ | ~~5.0 ppm maximum~~ |
| ~~Lead~~ | ~~100 ppm maximum~~ |
| ~~Total Halogens~~ | ~~1000 ppm maximum~~ |
| ~~Flash Point~~ | ~~130 °F minimum~~ |
| ~~Sulfur~~ | ~~2.0 % maximum (by weight)~~ |
| ~~Ash~~ | ~~1.0 % maximum~~ |

Specifications - The recycled fuel oil(s) shall be equivalent to unadulterated fossil fuel by meeting the following criteria:

| Constituent/Property | Allowable Level |
|---|---|
| Arsenic | 1.0 ppm maximum |
| Cadmium | 2.0 ppm maximum |
| Chromium | 5.0 ppm maximum |
| Lead | 100 ppm maximum |
| Total Halogens | 1000 ppm maximum |
| Flash Point No. 4 | 130°F minimum |
| Sulfur No. 4 | 2.0% maximum (by weight) |
| Ash | 1.0% maximum |

**Testing** [15A NCAC 02D .0605]

b. The DAQ reserves the right to require additional testing and/or monitoring of the recycled fuel oil(s) on an annual basis or without notice.

**~~Monitoring/Recordkeeping~~** ~~[15A NCAC 02D .0605]~~

~~c. The Permittee is responsible for ensuring that the recycled fuel oil(s), as received at the site, meet(s) the approved criteria for unadulterated fuel. The Permittee is held responsible for any discrepancies discovered by DAQ as a result of any sampling and analysis of the fuel oil(s).~~

~~d. The Permittee shall maintain accurate records of the following information at the facility for a minimum of three years, and shall make the records available to representatives of the DAQ upon request:~~
~~i. The actual amount of recycled fuel oil delivered to, and fired at the facility on an annual basis.~~
~~ii. Each load of recycled fuel oil received shall include the following:~~
~~A. A delivery manifest document clearly showing the shipment content and amount, its place and date of loading, and place and date of destination.~~
~~B. A batch specific analytical report that contains an analysis for all constituents/properties listed in Section 2.1 A.13.a. above. Analytical results of the samples representative of the recycled oil shipment from the vendor shall be no more than one year old when received.~~
~~C. Batch signature information consisting of the following:~~
~~1. Batch number;~~
~~2. Tank identification with batch volume of recycled oil;~~
~~3. Date and time the batch completed treatment; and,~~
~~4. Volume delivered.~~
~~D. A certification indicating that the recycled fuel oil does not contain detectable PCBs (< 2 ppm).~~
~~e. The Division of Air Quality reserves the right to require additional testing and/or monitoring of the On Specification recycled No. 4 equivalent fuel oil on an annual basis or without notice.~~

~~**Reporting** [15A NCAC 02D .0605]~~
~~f. Within 30 days after each calendar year, regardless of the quantity of recycled No. 4 equivalent oil received or fired on site, the Permittee shall submit in writing to the Regional Supervisor, DAQ, the following:~~
~~i. A summary of the results of the analytical testing for the previous calendar year; and,~~
~~The total gallons of recycled No.4 equivalent fuel oil fired at the facility during the previous calendar year.~~

**Monitoring/Recordkeeping** [15A NCAC 2D .0605]
c. The Permittee is responsible for ensuring that the recycled fuel oil(s), as received at the site, meet(s) the approved criteria for unadulterated fuel. The Permittee is held responsible for any discrepancies discovered by DAQ as a result of any sampling and analysis of the fuel oil(s).
d. The Permittee shall maintain at the facility for a minimum of three years, and shall make available to representatives of the DAQ upon request, accurate records of the following:
i. The actual amount of recycled fuel oil(s) delivered to, and combusted at the facility on an annual basis.
ii. Each load of recycled fuel oil received shall include the following:
A. A delivery manifest document clearly showing the shipment content and amount, its place and date of loading, and place and date of destination;
B. A batch specific analytical report that contains an analysis for all constituents/properties listed above. Analytical results of the recycled oil shipment shall be no more than one year old when received;
C. Batch signature information consisting of the following: a batch number, tank identification with batch volume of recycled oil, date and time the batch completed treatment, and volume(s) delivered; and
D. A certification indicating that the recycled fuel oil does not contain detectable PCBs (< 2 ppm).

**Reporting** [15A NCAC 2D .0605]
e. Within 30 days after each calendar year, regardless of the amount received or combusted, the Permittee shall submit in writing to the Regional Supervisor, DAQ, the following:
i. A summary of the results of the analytical testing for the previous 12 months; and
ii. The total gallons of recycled fuel oil(s) combusted at the facility for the previous 12 months.

**15. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY of the MACT- 40 CFR PART 63 SUBPART JJJJJJ: NATIONAL EMISSIONS STANDARD FOR INDUSTRIAL, COMMERCIAL, AND INSTITUTIONAL BOILERS**

**Applicability** [40 CFR 63.11193, 63.11194(a)(1), (b), 63.11200(c)]

a. For these sources **(ID Nos. ES1, ES2, ES3, ES12, ES14 and ES22)**, the Permittee shall comply with all applicable provisions, including the notification, testing, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .1111, "Maximum Achievable Control Technology" as promulgated in 40 CFR 63, Subpart JJJJJJ, "National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers," including Subpart A "General Provisions."

**Definitions and Nomenclature**

b. For the purposes of this permit condition, the definitions and nomenclature contained in 40 CFR 63.11237 shall apply.

**General Provisions** [40 CFR 63.11235]

c. The Permittee shall comply with the General Provisions as applicable pursuant to Table 8 of 40 CFR 63 Subpart JJJJJJ.

**Compliance Dates**

d. The Permittee shall achieve compliance with the initial tune up and energy assessment requirements no later than March 21, 2014.
   i. These requirements have been met.
      A. The initial tune ups were completed March 25 – 27th, 2014.
      B. The energy assessment was conducted November 19 – 20th, 2013.
      C. Annual tune ups were last performed on June 16th, 2016.

   [40 CFR 63.11196(a)(1), (a)(3), 63.11210(c)]

**Notification of Compliance Status** [40 CFR 63.11225)]

e. The Permittee shall submit a Notification of Compliance Status no later than July 19, 2014.
   i. This requirement has been met on 06/03/2014.

**General Compliance Requirements** [15A NCAC 02Q .0508(b)]

f. At all times the Permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.
   [40 CFR 63.11205(a)]

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the requirements in condition f. are not met.

**Performance Tune-up Requirements** [15A NCAC 02Q .0508(b)]

g. The Permittee shall conduct an initial tune-up of the boiler and subsequent tune-ups biennially.
   i. Each biennial tune-up shall be conducted no more than 25 months after the previous tune-up.

ii. The Permittee shall conduct the tune-ups while burning the type of fuel (or fuels in the case of boilers that routinely burn two types of fuels at the same time) that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up.
iii. The tune-ups shall be conducted according to the following procedures:
A. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection.
B. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.
C. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection.
D. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject.
E. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.
F. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of startup.

[40 CFR 63.11201(b), Table 2, 40 CFR 63.11223(a),(b)]
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the requirements in condition g. are not met.

**Energy Assessment Requirements** [15A NCAC 02Q .0508(b)]

h. The Permittee shall conduct a one-time energy assessment performed by a qualified energy assessor.
i. This requirement was met on 11/19-20/2013.

[40 CFR 63.11201(b), Table 2]

**Recordkeeping** [15A NCAC 02Q .0508(f)]

i. The Permittee shall maintain the following records:
i. As required in 40 CFR 63.10(b)(2)(xiv), the Permittee shall keep a copy of each notification and report that was submitted to comply with this rule and all documentation supporting any Notification of Compliance Status that was submitted.
ii. The Permittee shall maintain on-sire and submit, if requested by the Administrator, a report containing the following information:
A. The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler.
B. A description of any corrective actions taken as a part of the tune-up of the boiler.
C. The type and amount of fuel used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.
iii. The Permittee shall keep the following records to document conformance with the applicable requirements:
A. Records must identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned.
B. The Permittee shall keep a copy of each boiler energy assessment report.
C. For operating units that combust non-hazardous secondary materials (e.g. saleable fat) that have

been determined not to be solid waste pursuant to 40 CFR 241.3(b)(1), the Permittee shall keep a record which documents how the secondary material meets each of the legitimacy criteria under 40 CFR 241.3(d)(1). If you combust a fuel (e.g. saleable fat) that has been processed from a discarded non-hazardous secondary material pursuant to 40 CFR 241.3(b)(4), you must keep records as to how the operations that produced the fuel satisfies the definition of processing in 40 CFR 241.2 and each of the legitimacy criteria in 40 CFR 241.3(d)(1). If the fuel (e.g., saleable fat) received a non-waste determination pursuant to the petition process submitted under 40 CFR 241.3(c), you must keep a record that documents how the fuel satisfies the requirements of the petition process. For operating units that combust non-hazardous secondary materials as fuel per 40 CFR 241.4, you must keep records documenting that the material is a listed non-waste under 40 CFR 241.4(a).

D. Records of the occurrence and duration of each malfunction of the boiler or of the associated air pollution control and monitoring equipment.

E. Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in **condition f**., including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation.

[40 CFR 63.11225(c), 63.11223(b)(6)]

j. The records must be in a form suitable and readily available for expeditious review. The Permittee shall keep each record for 5 years following the date of each recorded action. The Permittee shall keep each record on-site or be accessible from a central location by computer or other means that instantly provide access at the site for at least 2 years after the date of each recorded action. The Permittee may keep the records off site for the remaining 3 years.
[40 CFR 63.11225(d)]
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the requirements in conditions i. and j. are not met.

**Reporting** [15A NCAC 02Q .0508(f)]

k. The reporting requirements of 40 CFR 63.11225(b) shall be met by complying with General Condition P of Section 3 of this permit. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these reporting requirements are not met.

**16. 15A NCAC 02Q. 0317: AVOIDANCE CONDITIONS for 15A NCAC 02D .1111: MAXIMUM AVAILABLE CONTROL TECHNOLOGY**

a. In order to avoid the applicability of Environmental Management Commission Standard 15A NCAC 02D .1111 "Maximum Available Control Technology" (MACT) as promulgated in 40 CFR 63, Subpart JJJJJJ, "National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Area Sources: Industrial, Commercial, and Institutional Boilers", including Subpart A "General Provisions," the Permittee shall operate the emission source (**ID No. ES-21**) as a temporary boiler as defined in 40 CFR 63.11237. Temporary boiler means any gaseous or liquid fuel boiler that is designed to, and is capable of, being carried or moved from one location to another by means of, for example, wheels, skids, carrying handles, dollies, trailers, or platforms. A boiler is not a temporary boiler if any one of the following conditions exists:

i. The equipment is attached to a foundation.

ii. The boiler or a replacement remains at a location within the facility and performs the same or similar function for more than 12 consecutive months, unless the regulatory agency approves an extension. An extension may be granted by the regulating agency upon petition by the owner or operator of a unit specifying the basis for such a request. Any temporary boiler that replaces a temporary boiler at a location within the facility and performs the same or similar function will be included in calculating the consecutive time period unless there is a gap in operation of 12 months or more.

iii. The equipment is located at a seasonal facility and operates during the full annual operating period of the seasonal facility, remains at the facility for at least 2 years, and operates at that facility for at least

3 months each year.

iv. The equipment is moved from one location to another within the facility but continues to perform the same or similar function and serve the same electricity, steam, and/or hot water system in an attempt to circumvent the residence time requirements of this definition.

[40CFR 63.11195, 63.11237]

**Recordkeeping** [15A NCAC 2Q 0508(f)]

b. The Permittee shall maintain, and make available upon request, the following records:
   i. the first, last and total number of days the boiler is on site for each consecutive time period the boiler is brought on site and;
   ii. the function of the boiler for each consecutive time period.

   The results shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the records in condition b. above are not maintained or the boiler does not meet the definition of a temporary boiler as defined in condition a. above.

**B. Feed Grade Plant Offal Process (ID No. ES-4);**
**Feather dryer~~s~~ (ID No~~s~~. 5a ~~and 5c~~);**
**Feather/Blood dryer (ID No. ES-5c);**
**~~Seven feather cookers (ID No. 5b)~~;**
**Feather hydrolyser (ID No. ES5d);**
**Feed Grade Plant Pressers, Centrifuges & Miscellaneous Equipment (ID No. ES6);**
**Fat and Grease Process (ID No. ES7);**
**Pet Food Grade Plant Offal Process No. 1 (ID No. ES11);**
**Pet Food Grade Plant Equipment (ID No. ES16); and,**
**Pet Food Grade Plant Offal Process No. 2 (ID No. ES20)**

The following table provides a summary of limits and standards for the emission source(s) described above:

| Regulated Pollutant | Limits/Standards | Applicable Regulation |
|---|---|---|
| Particulate matter | $E = 4.10P^{0.67}$ for units with process weight rates less than 30 tons per hour<br>$E = 55.0(P)^{.11} - 40$ for units with process weight rates greater than 30 tons per hour<br>where E = allowable emission rate in pounds per hour<br>P = process weight in tons per hour | 15A NCAC 02D .0515 |
| Visible emissions | 20 percent opacity | 15A NCAC 02D .0521(d) |
| Odors | The owner or operator of any facility that produces feed-grade animal proteins or feed-grade animal fats and oils, but do not apply to any portions of such facilities that are engaged exclusively in the processing of food for human consumption, shall comply with work practices standards - *Section 2.2 A.1. Facility-wide Affected Emission Sources* **State-enforceable only** | 15A NCAC 02D .0539 |

| Regulated Pollutant | Limits/Standards | Applicable Regulation |
|---|---|---|
| ~~Sulfur dioxide~~ | ~~Any of seven feather cookers (ID No. ES5b) and Feather hydrolyser (ID No. ES5d) shall not operate simultaneously~~<br>~~**PSD AVOIDANCE CONDITION**~~ | ~~15A NCAC 02Q .0317~~ |

**1. 15A NCAC 02D .0515: PARTICULATE EMISSIONS FROM MISCELLANEOUS INDUSTRIAL PROCESSES**

a. Emissions of particulate matter that are discharged into the atmosphere shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 02D .0515(a)].

$E = 4.10 \times P^{0.67}$ for units with process weight rate less than 30 tons per hour

Where E = allowable emission rate in pounds per hour calculated to three significant figures
P = process weight rate in tons per hour

$E=55.0(P)^{.11}- 40$ for units with process weight rates greater than 30 tons per hour

Where E = allowable emission rate in pounds per hour calculated to three significant figures
P = process weight rate in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

**Testing** [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1-B.1.a. above, for particulate matter, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

**Inspection and Maintenance Requirements**

c. The inspection and maintenance conditions apply to each control device regardless of whether the control device is in service at any given point in time. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the control devices are not inspected and maintained.

d. To comply with the provisions of this Permit and ensure that maximum control efficiency is maintained, the Permittee shall perform periodic inspections and maintenance as recommended by the manufacturer. As a minimum, the inspection and maintenance program will include:

i. Weekly inspection of scrubbers, including spray nozzles, packing material, and chemical feed system (chlorine dioxide) to ensure proper operation.
ii. Weekly inspection of mist eliminators to ensure that each system is draining properly,
iii. Weekly visual inspection of condensers, including ductwork leading to and coming from the condenser.
iv. Weekly inspection and replacement, as needed, of all instrumentation associated with control devices (including pH meters, pressure gauges, temperature gauges, etc.).
v. Monthly inspection of fan belts associated with air-cooled condensers.
vi. Semi-annual calibration of chlorine dioxide generation system.
vii. Daily inspection and replacement, as needed, of flow meters associated with fuel rate to each boiler.
viii. Annual (for each 12 month period following the initial inspection) internal inspection of the control devices and external inspection of associated ductwork to ensure structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and controls are not inspected and maintained.

**Recordkeeping** [15A NCAC 02Q .0508(f)]

e. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each inspection;
   iii. the results of any maintenance performed on the bagfilters; and
   iv. any variance from manufacturer's recommendations, if any, and corrections made.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

**Reporting** [15A NCAC 02Q .0508(f)]

f. The Permittee shall submit the results of any maintenance performed on the condensers (**ID Nos. CD4b, CD5c, CD5d, ~~CD7b~~, CD11a, CD11b, CD20a, and CD20b**), mist eliminators (**ID Nos. CD4e and CD4g**), venturi scrubbers (**ID Nos. CD4c, CD4f, CD6a, CD11c, and CD16a**), packed bed scrubbers (**ID Nos. CD4h, ~~CD6b~~ and CD16b**), and process boilers used as control devices (**ID Nos. ES1, ES2, ES3, ES12, ES14, and ~~ES19~~**) within 30 days of a written request by the DAQ.

g. The Permittee shall submit a summary report of monitoring and record keeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS**

a. Visible emissions from the units that make up the cooking processes (**ID Nos. ES4, ES5a, ES5c, ~~ES5b~~, ES5d, ES6, ES7, ES11, ES16, and ES20**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521 (d)]

~~As required by 15A NCAC 02D .0521(d) "Control of Visible Emissions," visible emissions from sources manufactured after July 1, 1971, shall not be more than 20 percent opacity when averaged over a six-minute period. However, six minute averaging periods may exceed 20 percent opacity if:~~

~~i. No six-minute period exceeds 87 percent opacity;~~

~~ii. No more than one six-minute period exceeds 20 percent opacity in any hour; and~~

~~iii. No more than four six-minute periods exceed 20 percent opacity in any 24-hour period~~

~~b. Visible emissions from the units that make up the cooking processes (**ID Nos. ES4, ES5a, ES5c, ES5b, ES5d, ES6, ES7, ES11, ES16, and ES20**) shall not exceed 20 percent opacity.~~

**Testing** [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1-B.2. a, (**ID Nos. ES4, ES5a, ES5c, ES5d, ES6, ES7, ES11, ES16, and ES20**) above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

**Monitoring/Recordkeeping** [15A NCAC 02Q .0508(f)]

c. To assure compliance, once a month the Permittee shall observe the emission points for the cooking processes (**ID Nos. ES4, ES5a, ~~ES5b~~, ES5c, ES5d, ES6, ES7, ES11, ES16, and ES20**) for any visible emissions above normal. The monthly observation must be made for each month of the calendar year period to ensure compliance with this requirement. If visible emissions from this source are observed to be above normal, the Permittee shall either:
   i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or

ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1-B.2.a. above.

If the above-normal emissions are not corrected per (i) above or if the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

d. The results of the monitoring for visible emissions shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
   iii. the results of any corrective actions performed.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

**Reporting** [15A NCAC 02Q .0508(f)]

e. The Permittee shall submit a summary report of monitoring and record keeping activities by January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

~~**3. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS for 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION**~~

~~a. To comply with this permit and avoid applicability of 15A NCAC 02D .0530(g) for major sources and major modifications, Prevention of Significant Deterioration, as requested by the Permittee, none of the feather cookers (**ID No. ES5b**) shall operate simultaneously with the feather hydrolyser (**ID No. ES5d**). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the any of the feather cookers operated simultaneously with the feather hydrolyser.~~

~~**Monitoring/Recordkeeping** [15A NCAC 02Q .0508(f)]~~

~~b. The Permittee shall maintain operating records for the feather cookers (**ID No. ES5b**) and the feather hydrolyser (**ID No. ES5d**). The records shall show the dates and times of operation of each of these emission units.~~

~~**Reporting** [15A NCAC 02Q .0508(f)]~~

~~c. For compliance purposes, within 30 days after each calendar year half the dates and times when the feather hydrolyser was not operable and the feather cookers were used shall be reported to the Regional Supervisor, Division of Air Quality.~~

## C. Truck Load Out Operations;
## Poultry meal and feather meal truck and/or container load out operation (ID No. ES13); and, Truck and/or container meal load out operation (ID No. ES17)

The following table provides a summary of limits and standards for the emission source(s) described above:

| Regulated Pollutant | Limits/Standards | Applicable Regulation |
|---|---|---|
| Visible emissions | 20 percent opacity | 15A NCAC 02D .0521(d) |

| Regulated Pollutant | Limits/Standards | Applicable Regulation |
|---|---|---|
| Odors | The owner or operator of any facility that produces feed-grade animal proteins or feed-grade animal fats and oils, but do not apply to any portions of such facilities that are engaged exclusively in the processing of food for human consumption, shall comply with work practices standards. *Section 2.2-A.1. Facility-wide Affected Emission Sources* – **State-enforceable only** | 15A NCAC 02D .0539 |

**1. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS**

a. ~~As required by 15A NCAC 02D .0521(d) "Control of Visible Emissions,"~~ Visible emissions ~~from sources manufactured after July 1, 1971,~~ Poultry meal and feather meal truck and/or container load out operation **(ID No. ES13)** and Truck and/or container meal load out operation **(ID No. ES17)** shall not be more than 20 percent opacity when averaged over a six-minute period. However, six minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521 (d)] ~~opacity if:~~

~~i. No six-minute period exceeds 87 percent opacity;~~
~~ii. No more than one six-minute period exceeds 20 percent opacity in any hour; and~~
~~iii. No more than four six-minute periods exceed 20 percent opacity in any 24-hour period~~

**Testing** [15A NCAC 2Q .0508(f)]

b. If emissions testing is required, the testing shall be performed in accordance with ~~15A NCAC 02D .0501(c)(8) and~~ General Condition JJ. If the results of this test exceed the limit given in Section 2.1-C.1.a. **(ID Nos. ES13 and ES17)**, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

**Monitoring/Recordkeeping** [15A NCAC 02Q .0508(f)]

c. To ~~ensure~~ assure compliance, on a weekly basis, the Permittee shall observe the emission points from the truck load out operations **(ID Nos. ES13 and ES17)** for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions are observed to be above normal, the Permittee shall either:
   i. Take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
   ii. Demonstrate that the percent opacity from the emission points truck load out operations (**ID Nos. ES13 and ES17**) in accordance with ~~15A NCAC 02D .0501(c)(8)~~ 15A NCAC 2D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1-C.1. a. above.

   If the above-normal emissions are not corrected per (i) above or if the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

d. The results of the monitoring for visible emissions shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and

iii. the results of any corrective actions performed.
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

**Reporting** [15A NCAC 2Q .0508(f)]

e. The Permittee shall submit a summary report of ~~monitoring and record keeping activities by~~ the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

### D. Rendering Room Air Systems; Feed Grade Plant rendering room air system (ID No. ES9); and, Pet Food Grade Plant rendering room air system (ID No. ES15)

The following table provides a summary of limits and standards for the emission source(s) described above:

| Regulated Pollutant | Limits/Standards | Applicable Regulation |
|---|---|---|
| Odors | The owner or operator of any facility that produces feed-grade animal proteins or feed-grade animal fats and oils, but do not apply to any portions of such facilities that are engaged exclusively in the processing of food for human consumption, shall comply with work practices standards. *Section 2.2-A.1. Facility-wide Affected Emission Sources* – **State-enforceable only** | 15A NCAC 02D .0539 |

## 2.2 - Multiple Emission Source(s) Specific Limitations and Conditions

### A. Facility-wide affected emission sources

The following table provides a summary of limits and standards applicable facility-wide:

| Regulated Pollutant | Limits/Standards | Applicable Regulation |
|---|---|---|
| Odors | The owner or operator of any facility that produces feed-grade animal proteins or feed-grade animal fats and oils, but do not apply to any portions of such facilities that are engaged exclusively in the processing of food for human consumption, shall comply with work practices standards. **State-enforceable only** | 15A NCAC 02D .0539 |

**STATE-ONLY REQUIREMENT:**

**1. 15A NCAC 02D .0539: ODOR CONTROL OF FEED INGREDIENT MANUFACTURING PLANTS**

a. As required by 15A NCAC 02D .0539 "Odor Control of Feed Ingredient Manufacturing Plants," the Permittee shall not allow, cause, or permit the operation or use of any device, machine, equipment, or other contrivance to process material to be used in the production of feed-grade animal proteins or feed-grade animal fats and oils unless all gases, vapors, and gas-entrained effluents from these processes are passed through condensers to remove all steam and other condensable materials. All non-condensables passing through the condensers shall then be incinerated at 1200 degrees Fahrenheit for a period of not less than 0.3 seconds, or treated in an equally effective manner.

**Monitoring** [15A NCAC 02Q .0508(f)]

b. Permittee shall install, operate, and maintain in good working order and calibration continuous measuring and recording devices where applicable for equipment operational parameters to document equipment operation in accordance with 02D.0539. In addition, the Permittee shall follow the approved quality assurance program for all monitoring devices and systems, which include:
   i. procedures and frequencies for calibration,
   ii. standards traceability,
   iii. operational checks,
   iv. maintenance schedules and procedures,
   v. auditing schedules and procedures,
   vi. data validation, and
   vii. schedule for implementing the quality assurance program.

c. The Permittee shall not allow, cause, or permit the installation or operation of expeller units unless they are properly hooded and all exhaust gases are collected or ducted to odor control equipment.

d. The Permittee shall not cause or permit any raw material to be handled, transported, or stored, or to undertake the preparation of any raw material without taking reasonable precautions to prevent odors from being discharged. For the purpose of 02D.0539, such raw material is in "storage" after it has been unloaded at a facility or after it has been located at the facility for at least 24 hours. Reasonable precautions shall include the following:
   i. storage of all raw material before or in the process of preparation, in properly enclosed and vented equipment or areas, together with the use of effective devices and methods to prevent the discharge of odor bearing gases;
   ii. use of covered vehicles or containers of watertight construction for the handling and transporting of any raw material; and
   iii. use of hoods and fans to enclose and vent the storage, handling, preparation, and conveying of any odorous materials together with effective devices or methods, or both, to prevent emissions of odors or odor bearing gases.

**Notification of Release of Excessive and Malodorous Gases or Vapors:**

e. The Permittee shall notify the regional supervisor of the appropriate regional office within two business days after conditions are encountered that cause or may cause release of excessive and malodorous gases or vapors.

**Compliance Statement:**

f. The Permittee shall continue to operate in compliance as described in the compliance determination submitted before January 1, 1997, pursuant to 15A NCAC 02D .0539(h)(1). The Division of Air Quality may request additional information at a later date upon further review of the compliance demonstration.

g. To ensure compliance with 15A NCAC 02D .0539, the Permittee shall:
   i. Wash raw material truck trailers interiors after unloading and before they are moved to a staging or parking area;
   ii. Daily clean up spilled or leaked materials, to include materials in the staging area as well as in other areas not controlled with odor control equipment;
   iii. Conduct monthly odor surveys of processes and storage areas around the plant in order to minimize odors and record the results of the survey. At a minimum, the survey should include areas identified for improvement and corrective action taken;
   iv. Wash the raw material staging area a minimum of three times per week when daily temperatures are above freezing and record the washes in a logbook; and
   v. Maintain a negative pressure in all processing areas. Entrance doors to all processing areas may be opened for the entrance and exit of trucks, and the doors may remain open as long as a negative pressure is maintained.

**Recordkeeping:**

h. The Permittee shall record the time that reasonable precautions were taken for each raw material load relative to the maximum 24-hour storage time without taking those precautions. Each exceedance of the 24-hour storage time limit and the associated calendar date shall be recorded in a logbook, which shall be made available for review by the Regional Office inspector.

**Reporting:**

i. The Permittee shall submit semi-annual reports by January 30 and July 30 of each calendar year relative to the storage of raw material. Each report shall include:
   i. Calendar dates covered in that period; and
   ii. Exceedances of the 24-hour storage time limit.

**Inspection and Maintenance Requirements:**

j. The inspection and maintenance conditions apply to each control device regardless of whether the control device is in service at any given point in time.
   i. To comply with the provisions of this Permit and ensure that maximum control efficiency is maintained, the Permittee shall perform periodic inspections and maintenance as recommended by the manufacturer. As a minimum, the inspection and maintenance program will include:
      (A) Weekly inspection of scrubbers, including spray nozzles, packing material, and chemical feed system (chlorine dioxide) to ensure proper operation.
      (B) Weekly inspection of mist eliminators to ensure that each system is draining properly,
      (C) Weekly visual inspection of condensers, including ductwork leading to and coming from the condenser.
      (D) Weekly inspection and replacement, as needed, of all instrumentation associated with control devices (including pH meters, pressure gauges, temperature gauges, etc.).
      (E) Monthly inspection of fan belts associated with air-cooled condensers.
      (F) Semi-annual calibration of chlorine dioxide generation system.
      (G) Daily inspection and replacement, as needed, of flow meters associated with fuel rate to each boiler.
      (H) Annual internal inspection of the control devices and external inspection of associated ductwork to ensure structural integrity.
   ii. Non-condensable vapor from the offal process (**ID No. ES4**), feather dryer~~s~~ (**ID Nos. ES5a ~~and S5c~~**), feather/blood dryer (ID No. ES5c), ~~the seven feather cookers (**ID No. ES5b**)~~, the feather hydrolyser (**ID No. ES5d**), and the grease process (**ID No. ES7**) cannot be exhausted from the venturi scrubber (**ID No. CD6a**)/mist eliminator **(ID No. CD4g)** to the packed bed scrubber (**ID No. ~~CD6b~~** CD4h) (back-up control) unless boilers (**ID Nos. ES1, ES2, ES3, ES12**) (primary control) cannot be used for odorous emission combustion per 2D .0539.
   iii. To prevent odorous emissions from the facility the optimum control efficiency of the venturi scrubbers (**ID Nos. CD4c, CD4f, CD6a, CD11c, and CD16a**), packed bed scrubbers (**ID Nos. ~~CD6b,~~ CD4h, and CD16b**), cross-flow scrubbers (**ID Nos. CD9a and CD15a**), condensers (**ID Nos. CD4b, CD5c, CD5d, ~~CD7b~~, CD11a, CD11b, CD20a, and CD20b**), mist eliminators (**ID Nos. CD4e and CD4g**), and boilers (**ID Nos. ES1, ES2, ES3, ES12, and ES14**) shall be maintained. To ensure these control devices are maintained, the Permittee shall perform inspections and maintenance as recommended by the manufacturer.

***For Odor Control Devices:***

k. Monitoring Requirements: The Permittee shall monitor and record which control devices are used during all hours of operation. If the control device is not operating within the permitted operating parameter a maintenance request shall be recorded in the logbook as well as the date that the corrective action was completed.

i. Scrubbers: The Permittee shall ensure the proper performance of the scrubber by monitoring scrubbant flow pressure, oxidation reduction potential, and exit gas temperature, as indicated for each scrubber. The packing of each packed bed scrubber shall be cleaned or replaced on a weekly basis to ensure proper operation in lieu of monitoring of pressure drop across the bed. In addition, each venturi scrubber shall be inspected internally and cleaned weekly to ensure proper operation.

~~**Non Condensable System**~~ **Scrubbers at Feed Grade Plant:**

(A) Packed bed scrubber (**ID No.** ~~**CD6b**~~ CD4h) shall maintain a scrubbant flow pressure of ~~6 to 10~~ 10 to 22 psig, and the pressure shall be recorded once a day. This scrubber shall utilize chlorine dioxide to control odors. The Permittee shall ensure proper performance of the scrubber by continuously monitoring and recording the oxidation-reduction potential (ORP) utilizing hourly averaging while maintaining a minimum ORP of +350 mV. An alarm shall be used to notify the facility when the ORP drops below +350 mV. If the hourly average ORP reading falls below +350mV, the Permittee shall record what corrective actions were taken to regain an ORP level of +350mV or higher. In addition, the Permittee shall inspect and calibrate the continuous ORP meters in accordance with the manufacturer's recommendation or as approved by DAQ to ensure proper operation.

(B) Venturi scrubbers (**ID Nos. CD4f and CD6a**) shall maintain a scrubbant flow pressure of 12 to 15 Psig, and the pressure shall be recorded once a day. The maximum temperature of the gas exiting the scrubber shall not exceed 120 degrees Fahrenheit, and the exit gas temperature shall be recorded once a day. Daily monitoring of the pressure and the gas temperature shall be performed to ensure proper operation.

~~**Rendering Room Air System Scrubbers:**~~

(C) Two-staged cross-flow scrubber (**ID No. CD9a**) shall maintain a scrubbant flow pressure of 13 to 17 psig, and the pressure shall be recorded once a day. This scrubber shall utilize chlorine dioxide to control odors. The Permittee shall ensure proper performance of the scrubber by continuously monitoring and recording the oxidation-reduction potential (ORP) utilizing hourly averaging while maintaining a minimum ORP of +350 mV. An alarm shall be used to notify the facility when the ORP drops below +350mV. If the hourly average ORP reading falls below +350mV, the Permittee shall record what corrective actions were taken to regain an ORP level of +350 mV or higher. In addition, the Permittee shall inspection and calibrate the continuous ORP meters in accordance with the manufacturer's recommendations or as approved by DAQ to ensure proper operation.

**Scrubbers at Pet Grade Plant:**

(D) Two-staged cross-flow scrubber (**ID No. CD15a**) shall maintain a scrubbant flow pressure of 13 to 17 psig, and the pressure shall be recorded once a day. This scrubber shall utilize chlorine dioxide to control odors. The Permittee shall ensure proper performance of the scrubber by continuously monitoring and recording the oxidation-reduction potential (ORP) utilizing hourly averaging while maintaining a minimum ORP of +350 mV. An alarm shall be used to notify the facility when the ORP drops below +350 mV. If the hourly average ORP reading falls below +350 mV, the Permittee shall record what corrective actions were taken to regain an ORP level of +350mV or higher. In addition, the Permittee shall inspection and calibrate the continuous ORP meters in accordance with the manufacturer's recommendations or as approved by DAQ to ensure proper operation.

(E) The venturi scrubber used to control emissions from miscellaneous downstream equipment (**ID No. CD16a**) shall maintain a scrubbant flow pressure of 13 to 15 psig, and the pressure shall be recorded once a day. The maximum temperature of the gas exiting the scrubber shall not exceed 120 degrees Fahrenheit, and the exit gas temperature shall be recorded once a day. Daily monitoring of the pressure and the gas temperature shall be performed to ensure proper operation.

(F) The venturi scrubber used to control emissions from the cookers (**ID No. CD11c**) shall maintain a scrubbant flow pressure of 13 to 15 psig, and the pressure shall be recorded once a day. The maximum temperature of the gas exiting the scrubber shall not exceed 120 degrees Fahrenheit, and the exit gas temperature shall be recorded once a day. Daily monitoring of the pressure and the gas temperature shall be performed to ensure proper operation.

(G) Packed bed scrubber (**ID No. CD16b**) shall maintain a scrubbant flow pressure of 3 to 8 psig, and the pressure shall be recorded once a day. This scrubber shall utilize chlorine dioxide to control odors. The Permittee shall ensure proper performance of the scrubber by continuously monitoring and recording the oxidation-reduction potential (ORP) utilizing hourly averaging while maintaining a minimum ORP of +350 mV. An alarm shall be used to notify the facility when the ORP drops below +350 mV. If the hourly average ORP reading falls below +350 mV, the Permittee shall record what corrective actions were taken to regain an ORP level of +350 mV or higher. In addition, the Permittee shall inspect and calibrate the continuous ORP meters in accordance with the manufacturer's recommendations or as approved by DAQ to ensure proper operation.

~~**High Intensity Treatment System**~~

~~(H) Venturi scrubber (**ID No. CD4f**) shall maintain a scrubbant flow pressure of 12 to 15 psig, and the pressure shall be recorded once a day. The maximum temperature of the gas exiting the scrubber shall not exceed 120 degrees Fahrenheit, and the exit gas temperature shall be recorded once a day. Daily monitoring of the pressure and the gas temperature shall be performed to ensure proper operation.~~

~~(I) Packed bed scrubber (**ID No. CD4h**) shall maintain a scrubbant flow pressure of 10 to 22 psig, and the pressure shall be recorded once a day. This scrubber shall utilize chlorine dioxide to control odors. The Permittee shall ensure proper performance of the scrubber by continuously monitoring and recording the oxidation-reduction potential (ORP) utilizing hourly averaging while maintaining a minimum ORP of +350 mV. An alarm shall be used to notify the facility when the ORP drops below +350mV. If the hourly average ORP reading falls below +350 mV, the Permittee shall record what corrective actions were taken to regain an ORP level of +350mV or higher. In addition, the Permittee shall inspect and calibrate the continuous ORP meters in accordance with the manufacturer's recommendations or as approved by DAQ to ensure proper operation.~~

**Boilers at Feed Grade and Pet Grade Plants:**

ii. Boilers: Each boiler that is to be used as a control device (**ID Nos. ES1, ES2, ES3, ES12, and ES14**) shall be equipped with a device to continuously measure and record the amount of fuel flow into the boiler. Once a day the Permittee shall record the date, time, fuel flow rate into each applicable boiler while these boilers are being used as a control device. The boilers (**ID Nos. ES1, ES2, ES3, ES12, and ES14**) shall not be used as control devices for odorous emissions if the boilers are being operated in a low fire condition.

**Condensers at Feed Grade and Pet Grade Plants:**

iii. Condensers: The condensers (**ID Nos. CD4b, CD5c, CD5d, ~~CD7b~~, CD11a, CD11b, CD20a, and CD20b**) shall be equipped with a device to continuously measure the exit water temperature. The maximum temperature of the water exiting the condensers shall not exceed 160 degrees Fahrenheit. The device (*e.g.*, thermocouple) shall be installed in an accessible location and shall be maintained by the Permittee such that it is in proper working order at all times. Daily monitoring of the outlet temperature from each condenser shall be performed to ensure proper operation.

**Recordkeeping** [15A NCAC 02Q .0508(f)]

l. The Permittee shall maintain a logbook (written or electronic format) for each control device. This logbook shall include the results of all inspection and maintenance and monitoring activities. The logbook shall be kept on site and made available to the authorized DAQ representative upon request.
   i. The results of the inspection and maintenance performed shall be maintained in a logbook (written or electronic format). This logbook shall be on site and made available to the authorized DAQ representative.
      (A) Date and time of actions;
      (B) The results of each inspection;
      (C) The results of any maintenance performed on the control devices and/or chemical feed system; and
      (D) Any variance from the manufacturer's recommendations, if any, and corrections made.
   ii. The results of the required monitoring shall be maintained in a logbook (written or electronic format) on site and made available to the authorized DAQ representative upon request. The logbook shall record the following:
      (A) The proper operating range for each parameter being monitored;
      (B) The observed operating parameter at the time it was monitored;
      (C) Date and time of this observation;
      (D) Corrective action taken if the control device is not operating in the proper operating range; and
      (E) Date and time corrective action completed.

## 2.3 - Other Conditions

**STATE-ONLY REQUIREMENTS:**
**PERMIT REOPENING**

A. The state-only portion of the permit shall be reopened following issuance of this permit to evaluate the effectiveness of additional controls and/or limitations that may be implemented to significantly reduce the odorous emissions.
B. The Permittee shall collect one representative sample of saleable fat oil during each calendar year that this fuel is fired in any boiler. Each representative sample shall be analyzed for density and Btu value and this analysis will be reported by January 30 annually.

## SECTION 3 - GENERAL CONDITIONS (Version 4.0 1/7/16)

This section describes terms and conditions applicable to this Title V facility.

A. **General Provisions** [NCGS 143-215 and 15A NCAC 02Q .0508(i)(16)]

1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 02D and 02Q.
2. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to NCGS 143-215.114A and 143-215.114B, including assessment of civil and/or criminal penalties. Any unauthorized deviation from the conditions of this permit may constitute grounds for revocation and/or enforcement action by the DAQ.
3. This permit is not a waiver of or approval of any other Department permits that may be required for other aspects of the facility which are not addressed in this permit.
4. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted facility, or from penalties therefore, nor does it allow the Permittee to cause pollution in contravention of state laws or rules, unless specifically authorized by an order from the North Carolina Environmental Management Commission.
5. Except as identified as state-only requirements in this permit, all terms and conditions contained herein shall be enforceable by the DAQ, the EPA, and citizens of the United States as defined in the Federal Clean Air Act.
6. Any stationary source of air pollution shall not be operated, maintained, or modified without the appropriate and valid permits issued by the DAQ, unless the source is exempted by rule. The DAQ may issue a permit only after it receives reasonable assurance that the installation will not cause air pollution in violation of any of the applicable requirements. A permitted installation may only be operated, maintained, constructed, expanded, or modified in a manner that is consistent with the terms of this permit.

B. **Permit Availability** [15A NCAC 02Q .0507(k) and .0508(i)(9)(B)]

The Permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of Department of Environmental Quality upon request.

C. **Severability Clause** [15A NCAC 02Q .0508(i)(2)]

In the event of an administrative challenge to a final and binding permit in which a condition is held to be invalid, the provisions in this permit are severable so that all requirements contained in the permit, except those held to be invalid, shall remain valid and must be complied with.

D. **Submissions** [15A NCAC 02Q .0507(e) and 02Q .0508(i)(16)]

Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NOx budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:

Supervisor, Stationary Source Compliance
North Carolina Division of Air Quality
1641 Mail Service Center
Raleigh, NC 27699-1641

All submittals shall include the facility name and Facility ID number (refer to the cover page of this permit).

E. **Duty to Comply** [15A NCAC 02Q .0508(i)(3)]
The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition except conditions identified as state-only requirements constitutes a violation of the Federal Clean Air Act. Noncompliance with any permit condition is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

F. **Circumvention** - STATE ENFORCEABLE ONLY
The facility shall be properly operated and maintained at all times in a manner that will effect an overall reduction in air pollution. Unless otherwise specified by this permit, no emission source may be operated without the concurrent operation of its associated air pollution control device(s) and appurtenances.

G. **Permit Modifications**
1. Administrative Permit Amendments [15A NCAC 02Q .0514]
   The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 02Q .0514.
2. Transfer in Ownership or Operation and Application Submittal Content [15A NCAC 02Q .0524 and 02Q .0505]
   The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 02Q.0524 and 02Q .0505.
3. Minor Permit Modifications [15A NCAC 02Q .0515]
   The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 02Q .0515.
4. Significant Permit Modifications [15A NCAC 02Q .0516]
   The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 02Q .0516.
5. Reopening for Cause [15A NCAC 02Q .0517]
   The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 02Q .0517.

H. **Changes Not Requiring Permit Modifications**
1. Reporting Requirements
   Any of the following that would result in new or increased emissions from the emission source(s) listed in Section 1 must be reported to the Regional Supervisor, DAQ:
   a. changes in the information submitted in the application;
   b. changes that modify equipment or processes; or
   c. changes in the quantity or quality of materials processed.

   If appropriate, modifications to the permit may then be made by the DAQ to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause a violation of the emission limitations specified herein.

2. Section 502(b)(10) Changes [15A NCAC 02Q .0523(a)]
   a. "Section 502(b)(10) changes" means changes that contravene an express permit term or condition. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
   b. The Permittee may make Section 502(b)(10) changes without having the permit revised if:
      i. the changes are not a modification under Title I of the Federal Clean Air Act;
      ii. the changes do not cause the allowable emissions under the permit to be exceeded;

iii. the Permittee notifies the Director and EPA with written notification at least seven days before the change is made; and
iv. the Permittee shall attach the notice to the relevant permit.

c. The written notification shall include:
i. a description of the change;
ii. the date on which the change will occur;
iii. any change in emissions; and
iv. any permit term or condition that is no longer applicable as a result of the change.

d. Section 502(b)(10) changes shall be made in the permit the next time that the permit is revised or renewed, whichever comes first.

3. Off Permit Changes [15A NCAC 02Q .0523(b)]
The Permittee may make changes in the operation or emissions without revising the permit if:
a. the change affects only insignificant activities and the activities remain insignificant after the change; or
b. the change is not covered under any applicable requirement.

4. Emissions Trading [15A NCAC 02Q .0523(c)]
To the extent that emissions trading is allowed under 15A NCAC 02D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 02Q .0523(c).

I.A **Reporting Requirements for Excess Emissions and Permit Deviations** [15A NCAC 02D .0535(f) and 02Q .0508(f)(2)]

"Excess Emissions" - means an emission rate that exceeds any applicable emission limitation or standard allowed by any rule in Sections .0500, .0900, .1200, or .1400 of Subchapter 02D; or by a permit condition; or that exceeds an emission limit established in a permit issued under 15A NCAC 02Q .0700. *(Note: Definitions of excess emissions under 02D .1110 and 02D .1111 shall apply where defined by rule.)*

"Deviations" - for the purposes of this condition, any action or condition not in accordance with the terms and conditions of this permit including those attributable to upset conditions as well as excess emissions as defined above lasting less than four hours.

Excess Emissions

1. If a source is required to report excess emissions under NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or the operating permit provides for periodic (e.g., quarterly) reporting of excess emissions, reporting shall be performed as prescribed therein.
2. If the source is not subject to NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or these rules do NOT define "excess emissions," the Permittee shall report excess emissions in accordance with 15A NCAC 02D .0535 as follows:
a. Pursuant to 15A NCAC 02D .0535, if excess emissions last for more than four hours resulting from a malfunction, a breakdown of process or control equipment, or any other abnormal condition, the owner or operator shall:
i. notify the Regional Supervisor or Director of any such occurrence by 9:00 a.m. Eastern Time of the Division's next business day of becoming aware of the occurrence and provide:
- name and location of the facility;
- nature and cause of the malfunction or breakdown;
- time when the malfunction or breakdown is first observed;
- expected duration; and
- estimated rate of emissions;

ii. notify the Regional Supervisor or Director immediately when corrective measures have been accomplished; and
iii. submit to the Regional Supervisor or Director within 15 days a written report as described in 15A NCAC 02D .0535(f)(3).

Permit Deviations

3. Pursuant to 15A NCAC 02Q .0508(f)(2), the Permittee shall report deviations from permit requirements (terms and conditions) as follows:
   a. Notify the Regional Supervisor or Director of all other deviations from permit requirements not covered under 15A NCAC 02D .0535 quarterly. A written report to the Regional Supervisor shall include the probable cause of such deviation and any corrective actions or preventative actions taken. The responsible official shall certify all deviations from permit requirements.

I.B **Other Requirements under 15A NCAC 02D .0535**

The Permittee shall comply with all other applicable requirements contained in 15A NCAC 02D .0535, including 15A NCAC 02D .0535(c) as follows:

1. Any excess emissions that do not occur during start-up and shut-down shall be considered a violation of the appropriate rule unless the owner or operator of the sources demonstrates to the Director, that the excess emissions are a result of a malfunction. The Director shall consider, along with any other pertinent information, the criteria contained in 15A NCAC 02D .0535(c)(1) through (7).
2. 15A NCAC 02D .0535(g). Excess emissions during start-up and shut-down shall be considered a violation of the appropriate rule if the owner or operator cannot demonstrate that excess emissions are unavoidable.

J. **Emergency Provisions** [40 CFR 70.6(g)]

The Permittee shall be subject to the following provisions with respect to emergencies:

1. An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.
2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in 3. below are met.
3. The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that include information as follows:
   a. an emergency occurred and the Permittee can identify the cause(s) of the emergency;
   b. the permitted facility was at the time being properly operated;
   c. during the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the standards or other requirements in the permit; and
   d. the Permittee submitted notice of the emergency to the DAQ within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

K. **Permit Renewal** [15A NCAC 02Q .0508(e) and 02Q .0513(b)]

This 15A NCAC 02Q .0500 permit is issued for a fixed term not to exceed five years and shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete 15A NCAC 02Q .0500 renewal application is submitted at least nine months before the date of permit expiration. If the Permittee or applicant has complied with 15A NCAC 02Q .0512(b)(1), this 15A NCAC 02Q .0500 permit shall not expire until the renewal permit has been issued or denied. Permit expiration under 15A NCAC 02Q .0400 terminates the facility's right to operate unless a complete 15A NCAC 02Q .0400 renewal application is submitted at least six months before the date of permit expiration for facilities subject to 15A NCAC 02Q .0400 requirements. In

either of these events, all terms and conditions of these permits shall remain in effect until the renewal permits have been issued or denied.

L. **Need to Halt or Reduce Activity Not a Defense** [15A NCAC 02Q .0508(i)(4)]
It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

M. **Duty to Provide Information (submittal of information)** [15A NCAC 02Q .0508(i)(9)]
1. The Permittee shall furnish to the DAQ, in a timely manner, any reasonable information that the Director may request in **writing** to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.
2. The Permittee shall furnish the DAQ copies of records required to be kept by the permit when such copies are requested by the Director. For information claimed to be confidential, the Permittee may furnish such records directly to the EPA upon request along with a claim of confidentiality.

N. **Duty to Supplement** [15A NCAC 02Q .0507(f)]
The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the DAQ. The Permittee shall also provide additional information as necessary to address any requirement that becomes applicable to the facility after the date a complete permit application was submitted but prior to the release of the draft permit.

O. **Retention of Records** [15A NCAC 02Q .0508(f) and 02Q .0508 (l)]
The Permittee shall retain records of all required monitoring data and supporting information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring information, and copies of all reports required by the permit. These records shall be maintained in a form suitable and readily available for expeditious inspection and review. Any records required by the conditions of this permit shall be kept on site and made available to DAQ personnel for inspection upon request.

P. **Compliance Certification** [15A NCAC 02Q .0508(n)]
The Permittee shall submit to the DAQ and the EPA (Air and EPCRA Enforcement Branch, EPA, Region 4, 61 Forsyth Street SW, Atlanta, GA 30303) postmarked on or before March 1 a compliance certification (for the preceding calendar year) by a responsible official with all federally-enforceable terms and conditions in the permit, including emissions limitations, standards, or work practices. It shall be the responsibility of the current owner to submit a compliance certification for the entire year regardless of who owned the facility during the year. The compliance certification shall comply with additional requirements as may be specified under Sections 114(a)(3) or 504(b) of the Federal Clean Air Act. The compliance certification shall specify:
1. the identification of each term or condition of the permit that is the basis of the certification;
2. the compliance status (with the terms and conditions of the permit for the period covered by the certification);
3. whether compliance was continuous or intermittent; and
4. the method(s) used for determining the compliance status of the source during the certification period.

Q. **Certification by Responsible Official** [15A NCAC 02Q .0520]
A responsible official shall certify the truth, accuracy, and completeness of any application form, report, or compliance certification required by this permit. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

R. **Permit Shield for Applicable Requirements** [15A NCAC 02Q .0512]
1. Compliance with the terms and conditions of this permit shall be deemed compliance with applicable requirements, where such applicable requirements are included and specifically identified in the permit as of the date of permit issuance.
2. A permit shield shall not alter or affect:
   a. the power of the Commission, Secretary of the Department, or Governor under NCGS 143-215.3(a)(12), or EPA under Section 303 of the Federal Clean Air Act;
   b. the liability of an owner or operator of a facility for any violation of applicable requirements prior to the effective date of the permit or at the time of permit issuance;
   c. the applicable requirements under Title IV; or
   d. the ability of the Director or the EPA under Section 114 of the Federal Clean Air Act to obtain information to determine compliance of the facility with its permit.
3. A permit shield does not apply to any change made at a facility that does not require a permit or permit revision made under 15A NCAC 02Q .0523.
4. A permit shield does not extend to minor permit modifications made under 15A NCAC 02Q .0515.

S. **Termination, Modification, and Revocation of the Permit** [15A NCAC 02Q .0519]
The Director may terminate, modify, or revoke and reissue this permit if:
1. the information contained in the application or presented in support thereof is determined to be incorrect;
2. the conditions under which the permit or permit renewal was granted have changed;
3. violations of conditions contained in the permit have occurred;
4. the EPA requests that the permit be revoked under 40 CFR 70.7(g) or 70.8(d); or
5. the Director finds that termination, modification, or revocation and reissuance of the permit is necessary to carry out the purpose of NCGS Chapter 143, Article 21B.

T. **Insignificant Activities** [15A NCAC 02Q .0503]
Because an emission source or activity is insignificant does not mean that the emission source or activity is exempted from any applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement. The Permittee shall have available at the facility at all times and made available to an authorized representative upon request, documentation, including calculations, if necessary, to demonstrate that an emission source or activity is insignificant.

U. **Property Rights** [15A NCAC 02Q .0508(i)(8)]
This permit does not convey any property rights in either real or personal property or any exclusive privileges.

V. **Inspection and Entry** [15A NCAC 02Q .0508(l) and NCGS 143-215.3(a)(2)]
1. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the DAQ, or an authorized representative, to perform the following:
   a. enter the Permittee's premises where the permitted facility is located or emissions-related activity is conducted, or where records are kept under the conditions of the permit;
   b. have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
   c. inspect at reasonable times and using reasonable safety practices any source, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
   d. sample or monitor substances or parameters, using reasonable safety practices, for the purpose of assuring compliance with the permit or applicable requirements at reasonable times.

   Nothing in this condition shall limit the ability of the EPA to inspect or enter the premises of the Permittee under Section 114 or other provisions of the Federal Clean Air Act.
2. No person shall refuse entry or access to any authorized representative of the DAQ who requests entry for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or

interfere with any such authorized representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

W. **Annual Fee Payment** [15A NCAC 02Q .0508(i)(10)]
1. The Permittee shall pay all fees in accordance with 15A NCAC 02Q .0200.
2. Payment of fees may be by check or money order made payable to the N.C. Department of Environmental Quality. Annual permit fee payments shall refer to the permit number.
3. If, within 30 days after being billed, the Permittee fails to pay an annual fee, the Director may initiate action to terminate the permit under 15A NCAC 02Q .0519.

X. **Annual Emission Inventory Requirements** [15A NCAC 02Q .0207]
The Permittee shall report by **June 30 of each year** the actual emissions of each air pollutant listed in 15A NCAC 02Q .0207(a) from each emission source within the facility during the previous calendar year. The report shall be in or on such form as may be established by the Director. The accuracy of the report shall be certified by a responsible official of the facility.

Y. **Confidential Information** [15A NCAC 02Q .0107 and 02Q. 0508(i)(9)]
Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 02Q .0107, the Permittee may also submit a copy of all such information and claim directly to the EPA upon request. All requests for confidentiality must be in accordance with 15A NCAC 02Q .0107.

Z. **Construction and Operation Permits** [15A NCAC 02Q .0100 and .0300]
A construction and operating permit shall be obtained by the Permittee for any proposed new or modified facility or emission source which is not exempted from having a permit prior to the beginning of construction or modification, in accordance with all applicable provisions of 15A NCAC 02Q .0100 and .0300.

AA. **Standard Application Form and Required Information** [15A NCAC 02Q .0505 and .0507]
The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 02Q .0505 and .0507.

BB. **Financial Responsibility and Compliance History** [15A NCAC 02Q .0507(d)(4)]
The DAQ may require an applicant to submit a statement of financial qualifications and/or a statement of substantial compliance history.

CC. **Refrigerant Requirements (Stratospheric Ozone and Climate Protection)** [15A NCAC 02Q .0501(e)]
1. If the Permittee has appliances or refrigeration equipment, including air conditioning equipment, which use Class I or II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR Part 82 Subpart A Appendices A and B, the Permittee shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82 Subpart F.
2. The Permittee shall not knowingly vent or otherwise release any Class I or II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR Part 82 Subpart F.
3. The Permittee shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the EPA or its designee as required.

DD. **Prevention of Accidental Releases - Section 112(r)** [15A NCAC 02Q .0508(h)]
If the Permittee is required to develop and register a Risk Management Plan with EPA pursuant to Section 112(r) of the Clean Air Act, then the Permittee is required to register this plan in accordance with 40 CFR Part 68.

EE. **Prevention of Accidental Releases General Duty Clause - Section 112(r)(1)** – FEDERALLY-ENFORCEABLE ONLY
Although a risk management plan may not be required, if the Permittee produces, processes, handles, or stores any amount of a listed hazardous substance, the Permittee has a general duty to take such steps as are necessary to prevent the accidental release of such substance and to minimize the consequences of any release.

FF. **Title IV Allowances** [15A NCAC 02Q .0508(i)(1)]
This permit does not limit the number of Title IV allowances held by the Permittee, but the Permittee may not use allowances as a defense to noncompliance with any other applicable requirement. The Permittee's emissions may not exceed any allowances that the facility lawfully holds under Title IV of the Federal Clean Air Act.

GG. **Air Pollution Emergency Episode** [15A NCAC 02D .0300]
Should the Director of the DAQ declare an Air Pollution Emergency Episode, the Permittee will be required to operate in accordance with the Permittee's previously approved Emission Reduction Plan or, in the absence of an approved plan, with the appropriate requirements specified in 15A NCAC 02D .0300.

HH. **Registration of Air Pollution Sources** [15A NCAC 02D .0202]
The Director of the DAQ may require the Permittee to register a source of air pollution. If the Permittee is required to register a source of air pollution, this registration and required information will be in accordance with 15A NCAC 02D .0202(b).

II. **Ambient Air Quality Standards** [15A NCAC 02D .0501(c)]
In addition to any control or manner of operation necessary to meet emission standards specified in this permit, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards in 15A NCAC 02D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in this permit are required to prevent violation of the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls.

JJ. **General Emissions Testing and Reporting Requirements** [15A NCAC 02Q .0508(i)(16)]
Emission compliance testing shall be by the procedures of Section .2600, except as may be otherwise required in Rules .0524, .0912, .1110, .1111, or .1415 of Subchapter 02D. If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 02D .2600 and follow the procedures outlined below:

1. The owner or operator of the source shall arrange for air emission testing protocols to be provided to the Director prior to air pollution testing. Testing protocols are not required to be pre-approved by the Director prior to air pollution testing. The Director shall review air emission testing protocols for pre-approval prior to testing if requested by the owner or operator at least **45 days** before conducting the test.
2. Any person proposing to conduct an emissions test to demonstrate compliance with an applicable standard shall notify the Director at least **15 days** before beginning the test so that the Director may at his option observe the test.
3. The owner or operator of the source shall arrange for controlling and measuring the production rates during the period of air testing. The owner or operator of the source shall ensure that the equipment or process being tested is operated at the production rate that best fulfills the purpose of the test. The individual conducting the emission test shall describe the procedures used to obtain accurate process data and include in the test report the average production rates determined during each testing period.
4. Two copies of the final air emission test report shall be submitted to the Director not later than **30 days** after sample collection unless otherwise specified in the specific conditions. The owner or operator may request an extension to submit the final test report. The Director shall approve an extension request if he finds that the extension request is a result of actions beyond the control of the owner or operator.

a. The Director shall make the final determination regarding any testing procedure deviation and the validity of the compliance test. The Director may:
   i. Allow deviations from a method specified under a rule in this Section if the owner or operator of the source being tested demonstrates to the satisfaction of the Director that the specified method is inappropriate for the source being tested.
   ii. Prescribe alternate test procedures on an individual basis when he finds that the alternative method is necessary to secure more reliable test data.
   iii. Prescribe or approve methods on an individual basis for sources or pollutants for which no test method is specified in this Section if the methods can be demonstrated to determine compliance of permitted emission sources or pollutants.
b. The Director may authorize the Division of Air Quality to conduct independent tests of any source subject to a rule in this Subchapter to determine the compliance status of that source or to verify any test data submitted relating to that source. Any test conducted by the Division of Air Quality using the appropriate testing procedures described in Section 02D .2600 has precedence over all other tests.

KK. **Reopening for Cause** [15A NCAC 02Q .0517]

1. A permit shall be reopened and revised under the following circumstances:
   a. additional applicable requirements become applicable to a facility with remaining permit term of three or more years;
   b. additional requirements (including excess emission requirements) become applicable to a source covered by Title IV;
   c. the Director or EPA finds that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
   d. the Director or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
2. Any permit reopening shall be completed or a revised permit issued within 18 months after the applicable requirement is promulgated. No reopening is required if the effective date of the requirement is after the expiration of the permit term unless the term of the permit was extended pursuant to 15A NCAC 02Q .0513(c).
3. Except for the state-enforceable only portion of the permit, the procedures set out in 15A NCAC 02Q .0507, .0521, or .0522 shall be followed to reissue the permit. If the State-enforceable only portion of the permit is reopened, the procedures in 15A NCAC 02Q .0300 shall be followed. The proceedings shall affect only those parts of the permit for which cause to reopen exists.
4. The Director shall notify the Permittee at least 60 days in advance of the date that the permit is to be reopened, except in cases of imminent threat to public health or safety the notification period may be less than 60 days.
5. Within 90 days, or 180 days if the EPA extends the response period, after receiving notification from the EPA that a permit needs to be terminated, modified, or revoked and reissued, the Director shall send to the EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate.

LL. **Reporting Requirements for Non-Operating Equipment** [15A NCAC 02Q .0508(i)(16)]

The Permittee shall maintain a record of operation for permitted equipment noting whenever the equipment is taken from and placed into operation. During operation the monitoring recordkeeping and reporting requirements as prescribed by the permit shall be implemented within the monitoring period.

MM. **Fugitive Dust Control Requirement** [15A NCAC 02D .0540] - STATE ENFORCEABLE ONLY

As required by 15A NCAC 02D .0540 "Particulates from Fugitive Dust Emission Sources," the Permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible emissions beyond the property boundary. If substantive complaints or excessive fugitive dust emissions from the facility are observed beyond the property boundaries for six minutes in any one hour (using Reference Method

22 in 40 CFR, Appendix A), the owner or operator may be required to submit a fugitive dust plan as described in 02D .0540(f).

"Fugitive dust emissions" means particulate matter from process operations that does not pass through a process stack or vent and that is generated within plant property boundaries from activities such as: unloading and loading areas, process areas stockpiles, stock pile working, plant parking lots, and plant roads (including access roads and haul roads).

NN. **Specific Permit Modifications** [15A NCAC 02Q.0501 and .0523]

1. For modifications made pursuant to 15A NCAC 02Q .0501(c)(2), the Permittee shall file a Title V Air Quality Permit Application for the air emission source(s) and associated air pollution control device(s) on or before 12 months after commencing operation.
2. For modifications made pursuant to 15A NCAC 02Q .0501(d)(2), the Permittee shall not begin operation of the air emission source(s) and associated air pollution control device(s) until a Title V Air Quality Permit Application is filed and a construction and operation permit following the procedures of Section .0500 (except for Rule .0504 of this Section) is obtained.
3. For modifications made pursuant to 502(b)(10), in accordance with 15A NCAC 02Q .0523(a)(1)(C), the Permittee shall notify the Director and EPA (EPA - Air Planning Branch, 61 Forsyth Street SW, Atlanta, GA 30303) in writing at least seven days before the change is made. The written notification shall include:
    a. a description of the change at the facility;
    b. the date on which the change will occur;
    c. any change in emissions; and
    d. any permit term or condition that is no longer applicable as a result of the change.

In addition to this notification requirement, with the next significant modification or Air Quality Permit renewal, the Permittee shall submit a page "E5" of the application forms signed by the responsible official verifying that the application for the 502(b)(10) change/modification, is true, accurate, and complete. Further note that modifications made pursuant to 502(b)(10) do not relieve the Permittee from satisfying preconstruction requirements.

OO. **Third Party Participation and EPA Review** [15A NCAC 02Q .0521, .0522 and .0525(7)]

For permits modifications subject to 45-day review by the federal Environmental Protection Agency (EPA), EPA's decision to not object to the proposed permit is considered final and binding on the EPA and absent a third party petition, the failure to object is the end of EPA's decision-making process with respect to the revisions to the permit. The time period available to submit a public petition pursuant to 15A NCAC 02Q .0518 begins at the end of the 45-day EPA review period.

ATTACHMENT

## List of Acronyms

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|---|---|
| **AOS** | Alternate Operating Scenario |
| **BACT** | Best Available Control Technology |
| **Btu** | British thermal unit |
| **CAA** | Clean Air Act |
| **CAIR** | Clean Air Interstate Rule |
| **CEM** | Continuous Emission Monitor |
| **CFR** | Code of Federal Regulations |
| **DAQ** | Division of Air Quality |
| **DEQ** | Department of Environmental Quality |
| **EMC** | Environmental Management Commission |
| **EPA** | Environmental Protection Agency |
| **FR** | Federal Register |
| **GACT** | Generally Available Control Technology |
| **HAP** | Hazardous Air Pollutant |
| **MACT** | Maximum Achievable Control Technology |
| **NAA** | Non-Attainment Area |
| **NCAC** | North Carolina Administrative Code |
| **NCGS** | North Carolina General Statutes |
| **NESHAP** | National Emission Standards for Hazardous Air Pollutants |
| **$NO_X$** | Nitrogen Oxides |
| **NSPS** | New Source Performance Standard |
| **OAH** | Office of Administrative Hearings |
| **PM** | Particulate Matter |
| **$PM_{10}$** | Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less |
| **POS** | Primary Operating Scenario |
| **PSD** | Prevention of Significant Deterioration |
| **RACT** | Reasonably Available Control Technology |
| **SIC** | Standard Industrial Classification |
| **SIP** | State Implementation Plan |
| **$SO_2$** | Sulfur Dioxide |
| **tpy** | Tons Per Year |
| **VOC** | Volatile Organic Compound |